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CAR T Cell Therapy in Autoimmune Disease: A Potential Emerging Treatment Option

October 2025

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Various risks, uncertainties and assumptions could cause actual results to differ materially from those anticipated or implied in our forward-looking statements. Such risks and uncertainties include, but are not limited to, risks related to the success, cost, and timing of our development activities and clinical trials, risks related to our ability to demonstrate sufficient evidence of safety, efficacy and tolerability in our clinical trials, the risk that the results observed with the similarly-designed construct, including, but not limited to, dosing regimen, are not indicative of the results we seek to achieve with rese-cel, the risk that signs of biologic activity or persistence may not inform long-term results, risks related to clinical trial site activation or enrollment rates that are lower than expected, risks that modifications to trial design or approach may not have the intended benefits and that the trial design may need to be further modified; our ability to protect and maintain our intellectual property position, risks related to our relationships with third parties, uncertainties related to regulatory agencies' evaluation of regulatory filings and other information related to our product candidates, our ability to retain and recognize the intended incentives conferred by any regulatory designations, risks related to regulatory filings and potential clearance, the risk that any one or more of our product candidates will not be successfully developed and commercialized, the risk that the results of preclinical studies or clinical studies will not be predictive of future results in connection with future studies, risks related to volatile market and economic conditions and our ability to fund operations and continue as a going concern. New risks and uncertainties may emerge from time to time, and it is not possible to predict all risks and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise. Although we believe the expectations reflected in such forward-looking statements are reasonable, we can give no assurance that such expectations will prove to be correct. Accordingly, you are cautioned not to place undue reliance on these forward-looking statements. No representations or warranties (expressed or implied) are made about the accuracy of any such forward-looking statements. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause our actual results to differ materially from those contained in the forward-looking statements, see the section entitled "Risk Factors" in our most recent annual report on Form 10-K and quarterly report on Form 10-Q, as well as discussions of potential risks, uncertainties, and other important factors in our other filings with the Securities and Exchange Commission. Certain information contained in this Presentation relates to or is based on studies, publications, surveys and other data obtained from third-party sources and the Company's own internal estimates and research. While the Company believes these third-party sources to be reliable as of the date of this Presentation, it has not independently verified, and makes no representation as to the adequacy, fairness, accuracy or completeness of, any information obtained from third-party sources. The Company is the owner of various trademarks, trade names and service marks. Certain other trademarks, trade names and service marks appearing in this Presentation are the property of third parties. Solely for convenience, the trademarks and trade names in this Presentation are referred to without the ® and TM symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

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Learning Objectives

- Review the history of CAR T cell therapy in autoimmune diseases
- Describe the rationale for deep B cell depletion, particularly by targeting CD19, in the treatment of autoimmune diseases
- Describe late-stage clinical study designs and present the latest results from early stage trials evaluating investigational CAR T cell therapies for autoimmune diseases

CAR, chimeric antigen receptor; CD, cluster of differentiation.

Symposium Presenters

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Overview of CAR T in Autoimmune Diseases

David J. Chang

B Cells Play a Central Role in Autoimmune Diseases

Current therapeutic options often result in incomplete B cell depletion in tissues and lymphoid organs[1]

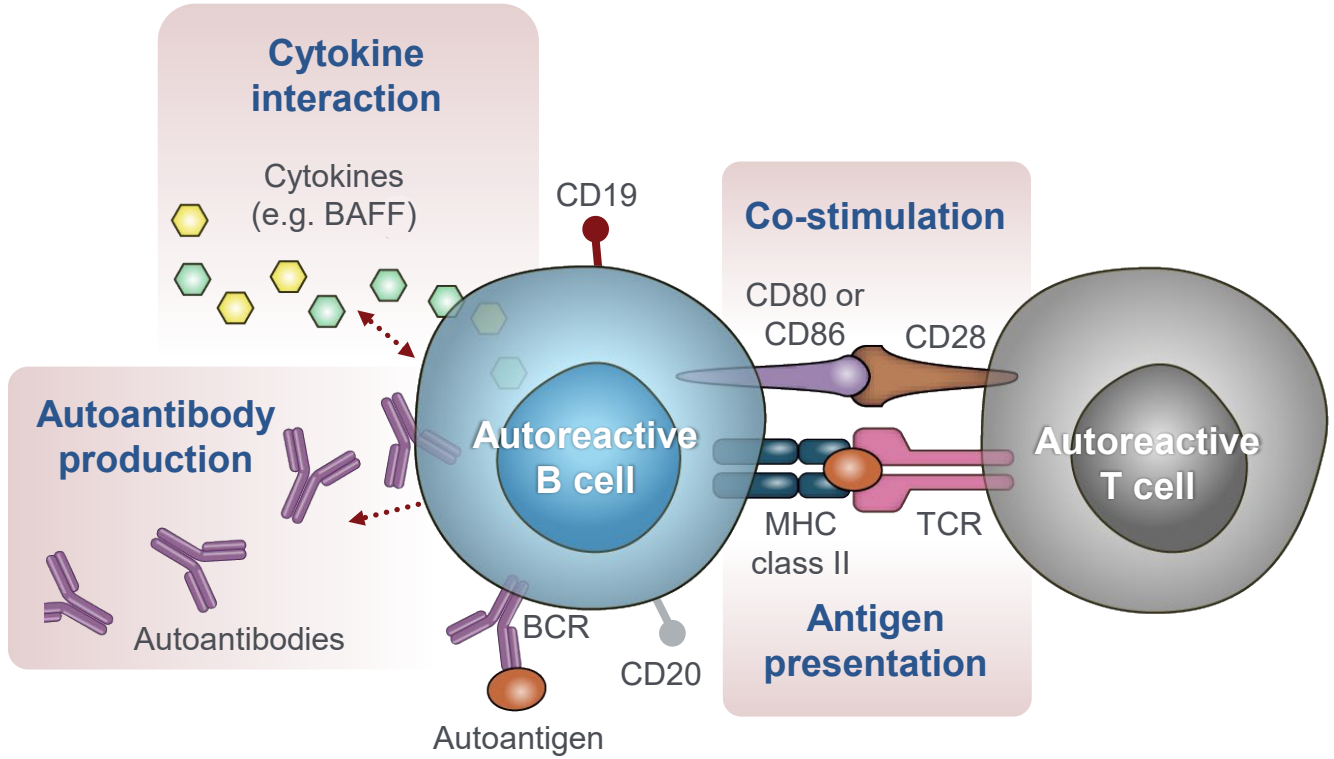


Image adapted from Rubin SJS, et al. 2019[2]

- B cells contribute to autoimmunity through a variety of mechanisms[2,3]
- B cells display profound and multifaceted autoreactivity that extends beyond the bloodstream into inflamed tissues[1]
- B cell-directed therapies are important tools in the treatment of autoimmune diseases[3]
- Failure to achieve long-standing remission with mAb-based therapy may be due to incomplete B cell depletion[1,4–6]

BAFF, B cell activating factor; BCR, B cell receptor; CD, cluster of differentiation; mAb, monoclonal antibody; MHC, major histocompatibility complex; TCR, T cell receptor.

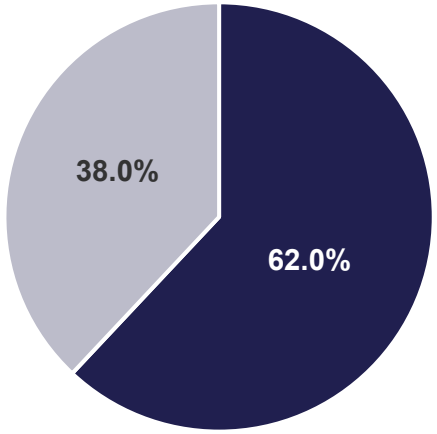
1. Schett G, et al. *Ann Rheum Dis*. 2024;83(11):1409–1420. 2. Rubin SJS, et al. *Nat Rev Rheumatol.* 2019;15(5):303–315. 3. Barnas JL, et al. *Curr Opin Immunol.* 2019;61:92–99. 4. Tur C, et al. *Ann Rheum Dis.* 2025;84(1):106–114. 5. Bucci L, et al. *Nat Med.* 2024;30(6):1593–1601. 6. Gonzalez T, et al. *Ann Rheum Dis.* 2024;83(1):945. Abstr. No. POS1062.

Treatment Response is Variable in B Cell-Driven Autoimmune Diseases

Durable remission is rarely achieved and frequently requires chronic immunomodulatory therapy

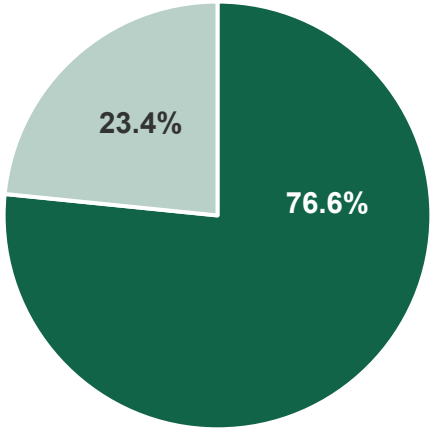
Myositis

Patients who achieved a response (TIS) following 1 year with ≥1 IS therapy[1]



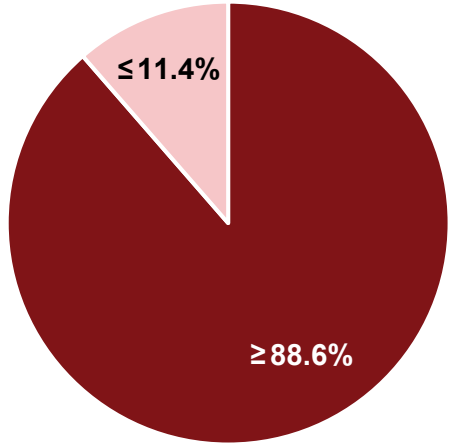
Systemic sclerosis

Patients with dcSSc who achieved improvement (CRISS) following 1 year with ≥1 IS therapy[2]



Systemic lupus erythematosus

Patients who achieved DORIS remission across all treatment arms in biologic RCTs[3,4]



CRISS, composite response index in systemic sclerosis; dcSSC, diffuse cutaneous systemic sclerosis; DORIS, definition of remission in SLE; IS, immunosuppressant; RCT, randomized controlled trial; SLE, systemic lupus erythematosus; TIS, total improvement score.

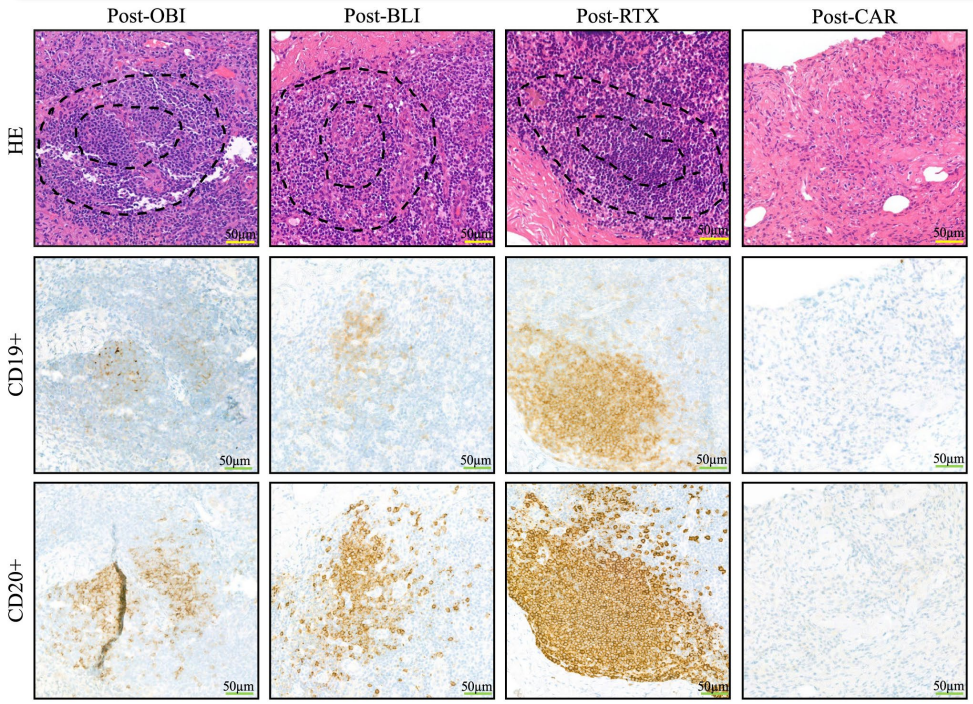
1. Espinosa-Ortega F, et al. *Arthritis Care Res (Hoboken).* 2022;74(3):468–477. 2. Zheng B, et al. *Arthritis Res Ther.* 2020;22(1):132. 3. Morand EF, et al. *Ann Rheum Dis.* 2023;82(5):639–645. 4. Parodis I, et al. *Arthritis Rheumatol.* 2023;75(suppl 9). Abstr No. 2551.

Incomplete B Cell Depletion Limits Durable Remission

- mAb-based therapy may result in incomplete B cell depletion, during which tissue-resident B cells escape[1]
- **A true "immune system reset" may therefore not be achieved with current therapies[1]**

- An academic study in autoimmune diseases has shown CD19-CAR T therapy achieves deeper depletion than with antibody-based therapies[2]
- To date, multiple bispecific T cell engager therapies have demonstrated an inability to fully deplete tissue-resident B cells[2–4]

Representative images of lymph node biopsies from OBI-, BLI-, RTX-, and CAR-treated patients[2]



HE, haematoxylin and eosin-stained biopsy
CD19+ / CD20+, immunohistochemistry pictures of CD19+ and CD20+ B cells within biopsy

BLI, blinatumomab; CAR, chimeric antigen receptor; CD, cluster of differentiation; mAb, monoclonal antibody; OBI, obinutuzumab; RTX, rituximab.

1. Schett G, et al. *Ann Rheum Dis*. 2024:ard-2024-225727. 2. Tur C, et al. *Ann Rheum Dis*. 2025:S0003-4967(25)04174-3. doi: 10.1016/j.ard.2025.06.2120. Online ahead of print. 3. Bucci L, et al. *Nat Med*. 2024;30(6):1593–1601. 4. Gonzalez et al. *Ann Rheum Dis*. 2024;83(1):945 [EULAR 2024 abstract POS1062].

What are Chimeric Antigen Receptor (CAR) T Cells?

Engineered T cells that combine the targeting ability of antibodies with the cell-killing machinery of T cells[1]

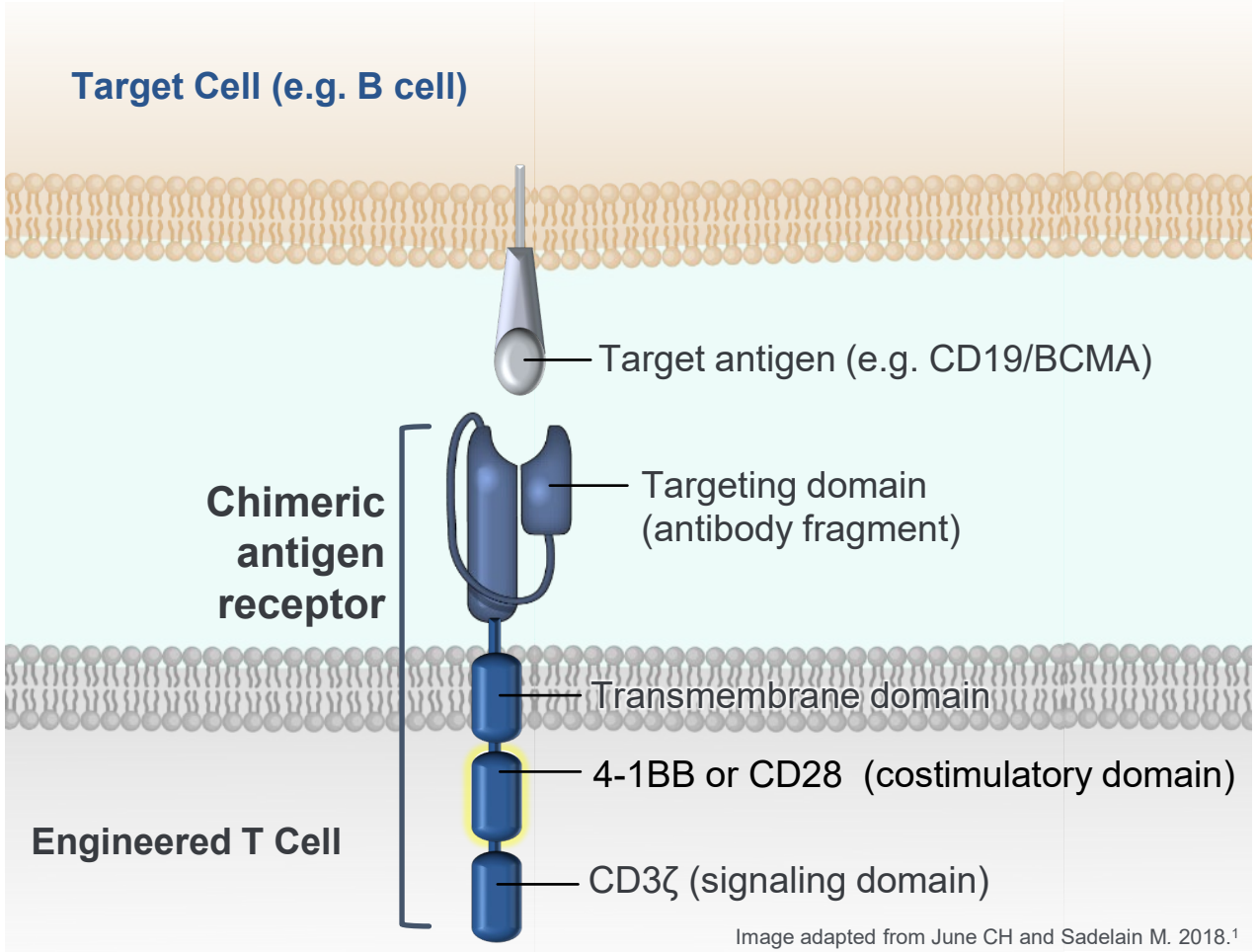


Image adapted from June CH and Sadelain M. 2018.[1]

Seven CAR T therapies have been FDA-approved in oncology since 2017[2–4]

CAR T cells bind to their target antigen, killing the associated cell[1,5]

- The binding results in activation of bystander immune and non-immune cells
- This activation may result in a significant release of a range of cytokines

BCMA, B cell maturation antigen; CAR, chimeric antigen receptor; CD, cluster of differentiation; FDA, U.S. Food and Drug Administration.

1. June CH, Sadelain M. *N Engl J Med*. 2018;379:64-73. 2. Holzinger A, Abken H. *Pharmacology*. 2022;107(9-10):446–463. 3. National Cancer Institute: CAR T Cells: Engineering Patients' Immune Cells to Treat Their Cancers. Available at www.cancer.gov/about-cancer/treatment/research/car-t-cells (accessed October 2025). 4. U.S. Food and Drug Administration. (2024 November 8). *FDA approves obecabtagene autoleucel for adults with relapsed or refractory B-cell precursor acute lymphoblastic leukemia* [Press release]. https://www.fda.gov/drugs/resources-information-approved-drugs/fda-approves-obecabtagene-autoleucel-adults-relapsed-or-refractory-b-cell-precursor-acute (accessed October 2025). 5. Shimabukuro-Vornhagen A, et al. *J Immunother Cancer*. 2018;6(1):56.

CD19-CAR T Therapy: Lessons From Oncology

Efficacy

COMPLETE remission rate:
40%–67%[1–5]

LONG-TERM remission rate:
30%–59%[6–7]

Safety

Known AEs include[8–10]

- CRS and ICANS
- Prolonged B cell aplasia
- Infections
- Insertional oncogenesis
- Secondary malignancies

Familiarity with managing AEs has enabled potential outpatient CAR T administration in oncology[11,12]

Risk factors in oncology[13–17]

Target-cell burden	→ CRS, ICANS
CAR T persistence	→ Prolonged B cell aplasia
Prolonged aplasia	→ Infection risk
Mutational load	→ Malignancy/relapse

AE risk may be reduced in autoimmune patients[18]

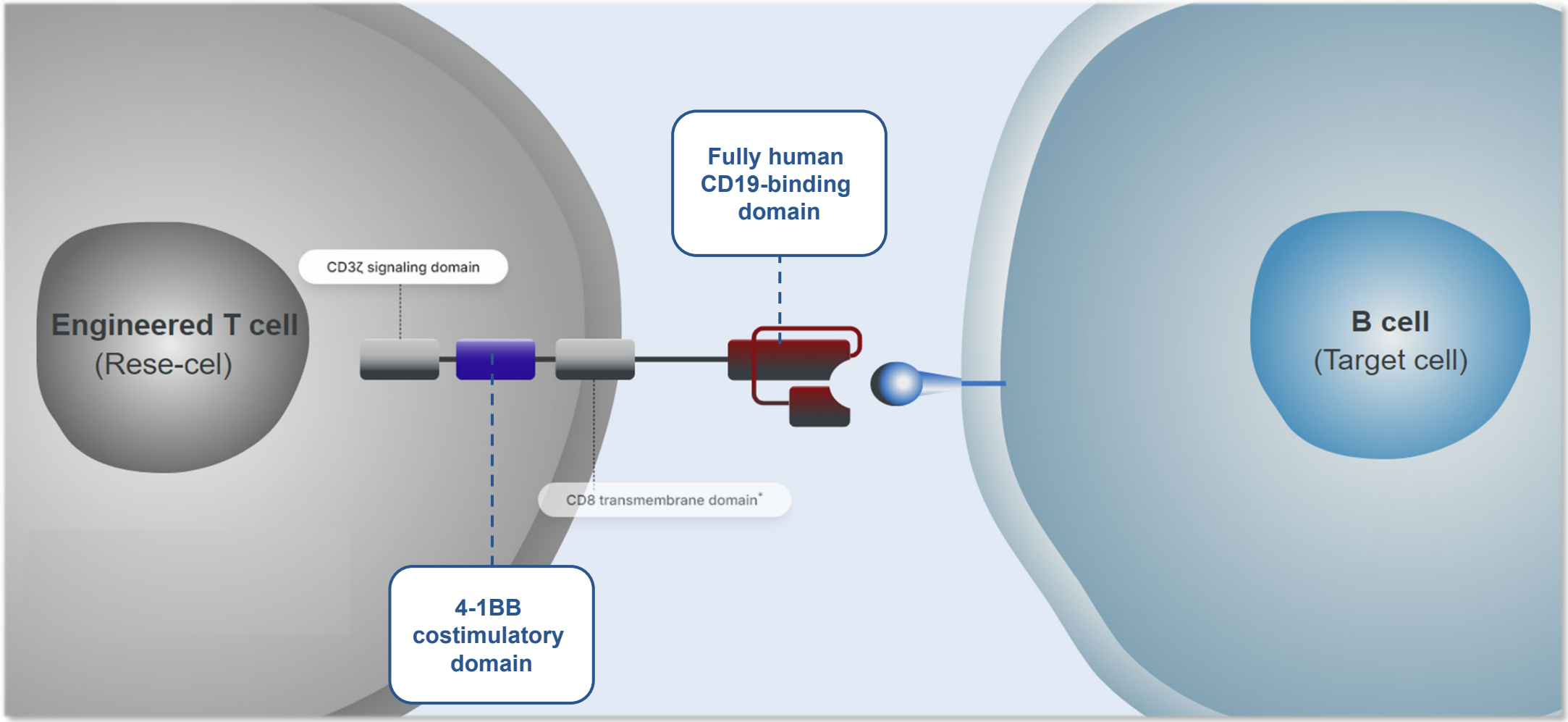
University of Erlangen study of CD19-CAR T-treated SLE patients reported less severe AEs than B-cell non-Hodgkin lymphoma patients despite similar CD19-CAR T-cell expansion

AE, adverse event; CAR, chimeric antigen receptor; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome.

1. Maude SL, et al. *N Engl J Med*. 2018;378(5):439–448. 2. Schuster SJ, et al. *N Engl J Med*. 2019;380(1):45–56. 3. Locke FL, et al. *Lancet Oncol*. 2019;20(1):31–42. 4. Abramson JS, et al. *Lancet*. 2020;396(10254):839–852. 5. Wang M, et al. *N Engl J Med*. 2020;382(14):1331–1342. 6. Schuster SJ, et al. *Lancet Oncol*. 2021;22(10):1403–1415. 7. Neelapu SS, et al. *Blood*. 2023;141(19):2307–2315. 8. Breyanzi. Prescribing information; 2025. Available at: www.fda.gov/media/145711/download (accessed October 2025). 9. Yescarta. Prescribing information; 2024. Available at: www.fda.gov/media/108377/download (accessed October 2025). 10. Kymriah. Prescribing information; 2025. Available at: www.fda.gov/media/107296/download (accessed October 2025). 11. Zhang Y, et al. *J Clin Med*. 2023;12(19):6124. 12. Furqan F, et al. *Blood Adv*. 2024;8(16):4320–4329. 13. Baker DJ, et al. *Nature*. 2023;619(7971):707–715. 14. Baker DJ, June CH. *Cell*. 2022;185(24):4471–4473. 15. Li YR, et al. *Trends Pharmacol Sci*. 2024;45(9):839–857. 16. Schett G, et al. *Nat Rev Rheumatol*. 2024;20(9):531–544. 17. Blache U, et al. *RMD Open*. 2023;9(4):e002907. 18. Müller F, et al. *Blood*. 2025;146(9):1088–1095.

Rese-cel: Designed for Patients with Autoimmune Disease[1]

Fully human CD19-binding domain and 4-1BB costimulatory domain



*Same construct as used in tisagenlecleucel, a CAR T therapy approved in oncology.[2]

CAR, chimeric antigen receptor; CD, cluster of differentiation; rese-cel, resecabtagene autoleucel.

1. Peng BJ, et al. *Mol Ther Methods Clin Dev*. 2024;32(2):101267. 2. Schuster SJ, et al. *N Engl J Med*. 2019;380(1):45–56.

Autologous CAR T Cell Therapy: Rese-cel Manufacturing[1]

Leveraging a patient's own T cells presents the possibility of removing or reducing preconditioning

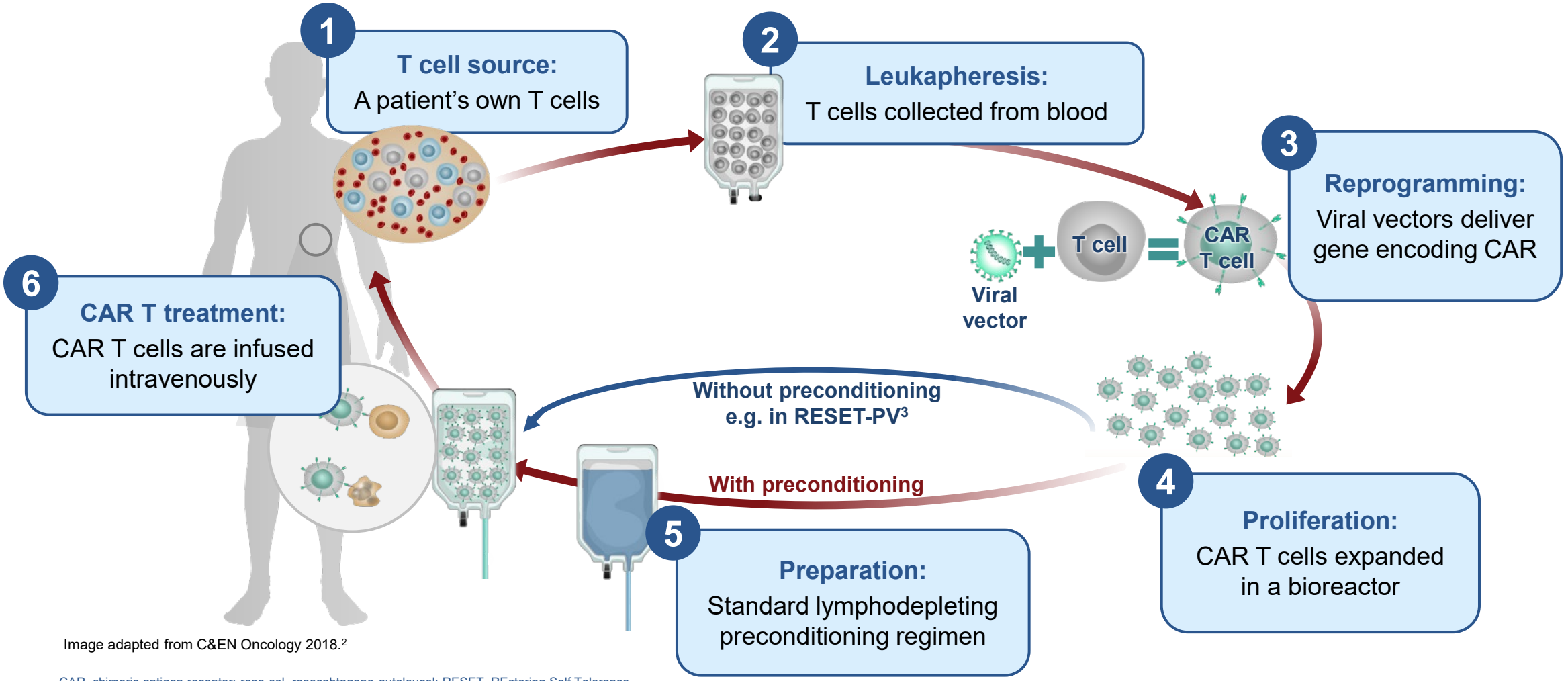


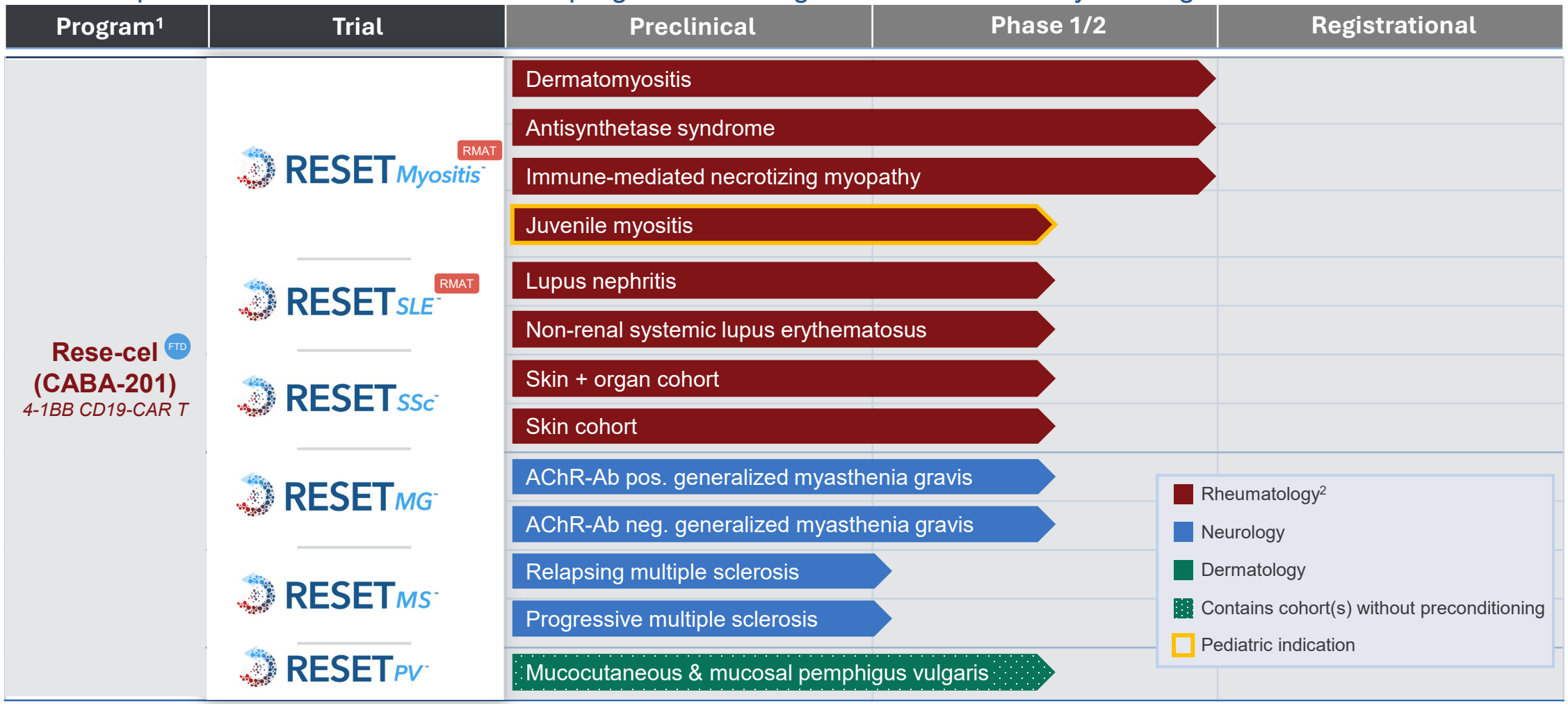
Image adapted from C&EN Oncology 2018.[2]

CAR, chimeric antigen receptor; rese-cel, resecabtagene autoleucel; RESET, REstoring Self Tolerance.

1. Peng BJ, et al. *Mol Ther Methods Clin Dev*. 2024;32(2):101267. 2. C&EN Oncology. 2024. Available at: https://cen.acs.org/pharmaceuticals/oncology/Controlling-CAR-T-scientists-plan/96/i19 (accessed October 2025). 3. NCT04422912. Available at: https://clinicaltrials.gov/study/NCT04422912 (accessed October 2025).

RESET™ Clinical Program for Rese-cel, a CD19-Directed CAR T

Disease-specific cohorts in RESET clinical program are designed to evolve directly into registrational studies



1. Additional pipeline candidate includes MuSK-CAART for MuSK-Ab positive MG, currently being evaluated in a Phase 1 trial. 2. Myositis patients can also be treated by neurologists or dermatologists; LN patients can also be treated by nephrologists.
FDA Fast Track Designation received in dermatomyositis, SLE and LN, systemic sclerosis, multiple sclerosis and myasthenia gravis.
FDA Regenerative Medicine Advanced Therapy (RMAT) received in myositis, SLE, and LN.
AChR-Ab, acetylcholine receptor antibody; CAR, chimeric antigen receptor; CD, cluster of differentiation; FDA, U.S. Food and Drug Administration; LN, lupus nephritis; MG, myasthenia gravis; MS, multiple sclerosis; PV, pemphigus vulgaris; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus; SSc, systemic sclerosis.
Cabaletta Bio: CABA-201. Available at: www.cabalettabio.com/pipeline/caba-201 (accessed October 2025).

Preconditioning with CAR T: Clinical Considerations

Clinical challenges of preconditioning with FLU/CY

Logistics[1,2]

- Requires up to three additional visits
- Treatment costs
- Delays in referral process

Side effects[1]

- Ovarian failure
- Cytopenias, neutropenia, infections

Exploring the efficacy of autologous CAR T without preconditioning in oncology

- BCMA-CAR T +/- lymphodepleting chemotherapy was clinically active in multiple myeloma[3]
- Rates of CAR T-associated CRS and neurotoxicity in cancer patients appear to be similar with or without preconditioning[3]

⇩

First investigation in autoimmune disease

RESET-PV study contains rese-cel cohort(s) without preconditioning[4]

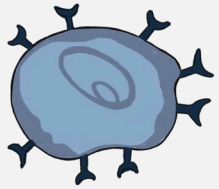
BCMA, B cell maturation antigen; CAR, chimeric antigen receptor; CD, cluster of differentiation; CRS, cytokine release syndrome; CY, cyclophosphamide; FLU, fludarabine; PV, pemphigus vulgaris; rese-cel, resecabtagene autoleucel; RESET, REstoring Self Tolerance.

1. Canelo-Vilaseca M, et al. *Bone Marrow Transplant*. 2025;60(5):559–567. 2. Sureda A, et al. *Future Oncol*. 2024;20(36):2855–2868. 3. Cohen AD, et al. *J Clin Invest*. 2019;129(6):2210–2221. 4. NCT04422912. Available at: https://clinicaltrials.gov/study/NCT04422912 (accessed October 2025).

Cell Therapy Sessions & Abstracts at ACR Convergence 2025

≥ 6 Scientific Sessions on cell therapy in the program

> 26 cell therapy related abstracts



CAR
T cell

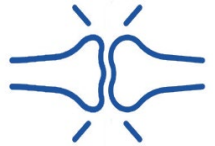
- Autologous CAR T
- Allogeneic CAR T
- CAR-NK
- In vivo

Diseases covered

SLE & LN

Myositis

Systemic sclerosis



RA

ACR, American College of Rheumatology; CAR, chimeric antigen receptor; LN, lupus nephritis; NK, natural killer; RA, rheumatoid arthritis; SLE, systemic lupus erythematosus.

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CAR T in Autoimmune Disease: Focus on Myositis

Rohit Aggarwal

Myositis: A Disease of Significant Unmet Need

Affects ~80K U.S. patients; high mortality and limited treatment options[1–9]

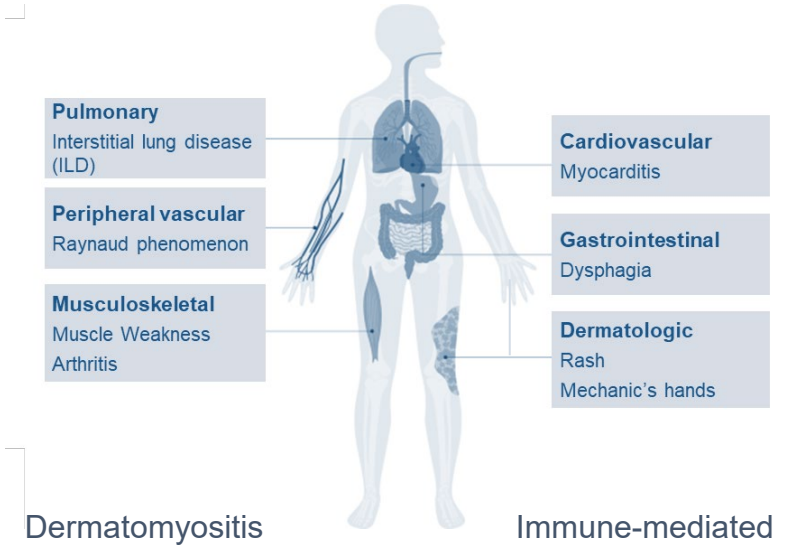
High disease burden: disability & mortality

- Moderate to severe disability (40% to 65%)[2]
- Assisted walking devices (18% to 38%)[2]
- The **risk of mortality is ~3 times higher** than the general population, primarily due to cancer and lung & cardiac complications[3]
  - ~20% mortality <5 years with standard immunosuppressive treatment[4]

High unmet medical need

- Mainstay of therapy is glucocorticoids with immunomodulators[1]
  - Only FDA-approved therapy is IVIg in adult dermatomyositis[1]

Potential manifestations and subtype prevalence in the US



Dermatomyositis (DM) **~60K pts**[5,6]

Immune-mediated necrotizing myopathy (IMNM) **~7.5K pts**[5,10]

Antisynthetase syndrome (ASyS) **~15K pts**[7,8]

Juvenile-onset disease (JIIM) **~2K pts**[9]

FDA, U.S. Food and Drug Adminisration; IVIg, intravenous immunoglobulin

1. Lundberg IE, et al. *Nat Rev Dis Primers*. 2021;7(1):86. 2. Opinc AH, et al. *Rheumatol Int*. 2019;39(7):1213-1220. 3. Marie I. *Curr Rheumatol Rep*. 2012;14(3):275-285. 4. Schiopu E, et al *Arthritis Res Ther*. 2012;14(1):R22. 5. Khoo T, et al. *Nat Rev Rheumatol*. 2023;19(11):695–712. 6. Kronzer VL, et al. *Arthritis Care Res (Hoboken)*. 2023;75(2):348–355. 7. Coffey C, et al. *Arthritis Rheumatol*. 2021;73 (Suppl 9). Abstr. No. 1022. 8. Dahal K, et al. *Ann Med Surg (Lond)*. 2022;82:104571. 9. Papadopoulou C, et al. *Nat Rev Rheumatol*. 2023;19(6):343–362. 10. Shelly S, et al. *Muscle Nerve*. 2022;65(5):541–546.

Myositis Classification Is Based on Autoantibodies and Clinical Features

Subtypes have distinct underlying immune mechanisms and clinical characteristics

	DM[1]	ASyS[1]	IMNM
Myositis clinical features	Symmetric proximal weakness	Symmetric proximal muscle weakness	Severe symmetric proximal muscle weakness with very high CK; prominent muscle atrophy likely due to necrotized muscle with permanent damage[1,2]
Extramuscular features	At least one of the associated conditions (ILD, dysphagia, dysphonia, malignancy, vasculitis)	ILD; cutaneous features such as mechanic's hands, arthritis, Raynaud's syndrome; fever	Primarily muscle-predominant, limited systemic involvement[1,2]
Key autoantibodies	Anti-Mi-2, anti-MDA5, anti-TIF1, anti-NXP2	Anti–tRNA synthetase (e.g. Jo-1, PL-7)	Anti-SRP and anti-HMGCR[1,2]
Muscle biopsy	Perifascicular atrophy with complement-mediated microangiopathy	Perimysial and perifascicular inflammation	Widespread myofiber necrosis with minimal lymphocytic infiltrate, macrophage and complement-rich[1,3]

ASyS, anti-synthetase syndrome; CK, creatine kinase; DM, dermatomyositis; HMGCR, 3-hydroxy-3-methylglutaryl-coenzyme A reductase; ILD, interstitial lung disease; IMNM, immune-mediated necrotizing myopathy; MDA5, melanoma differentiation-associated gene 5; NXP, nuclear matrix protein; SRP, signal recognition particle; TIF, transcriptional intermediary factor; tRNA, transfer ribonucleic acid.

1. Paik JJ, et al. *Rheumatology (Oxford).* 2025;64(6):3288–3302. 2. Weeding E, Tiniakou E. *Curr Treatm Opt Rheumatol.* 2021;7(2):150–160. 3. Preuße C, et al. *Am J Pathol.* 2012;181(6):2161–2171.

Myositis Treatment Is Inconsistent Across Clinical Settings

There are no universally-accepted guidelines or treatment approaches for myositis[1]

Myositis management typically begins with GCs, followed by immunomodulatory therapies

British Society for Rheumatology (BSR)[2]	
Refractory disease	IVIg or CYC; rituximab for autoantibody-positive; abatacept
Skin involvement	Rituximab or IVIg if non-responsive to GCs/DMARDs

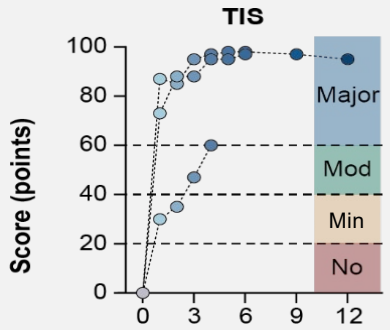
There is a need for standardized definitions of remission and low disease activity to enable consistent disease assessment, guide treatment decisions, and improve patient outcomes[3]

CYC, cyclophosphamide; DMARD, disease-modifying antirheumatic drug; GC, glucocorticoid; IVIg, intravenous immunoglobulin.

1. Paik JJ, et al. *Rheumatology (Oxford).* 2025;64(6):3288–3302. 2. Oldroyd AGS, et al. *Rheumatology.* 2022 61(5):1760–1768. 3. Pongtarakulpanit N, et al. *Autoimmun Rev*. 2025;24(10):103879

Published Clinical Data on CAR T to Date: Myositis[1]*

University of Erlangen data in three adult ASyS patients with active muscle and organ involvement treated with a CD19-CAR T cell therapy:[2]



- Achieved ACR–EULAR major response after 3 months, and maintained response
- One patient experienced gradual disease relapse after 9 months. Retreatment with CD19-CAR T was unsuccessful. **BCMA-CAR T** reinduced remission[3]
- CD19-CAR T: grade 1 CRS (fever) observed in two patients and grade 2 CRS observed in one patient; with possible grade 1 ICANS (dizziness) in one patient

Juvenile patients with refractory DM have also shown response to CAR T cell therapy in case reports[4,5]

More than 10 CAR T clinical trials in myositis are ongoing[1]

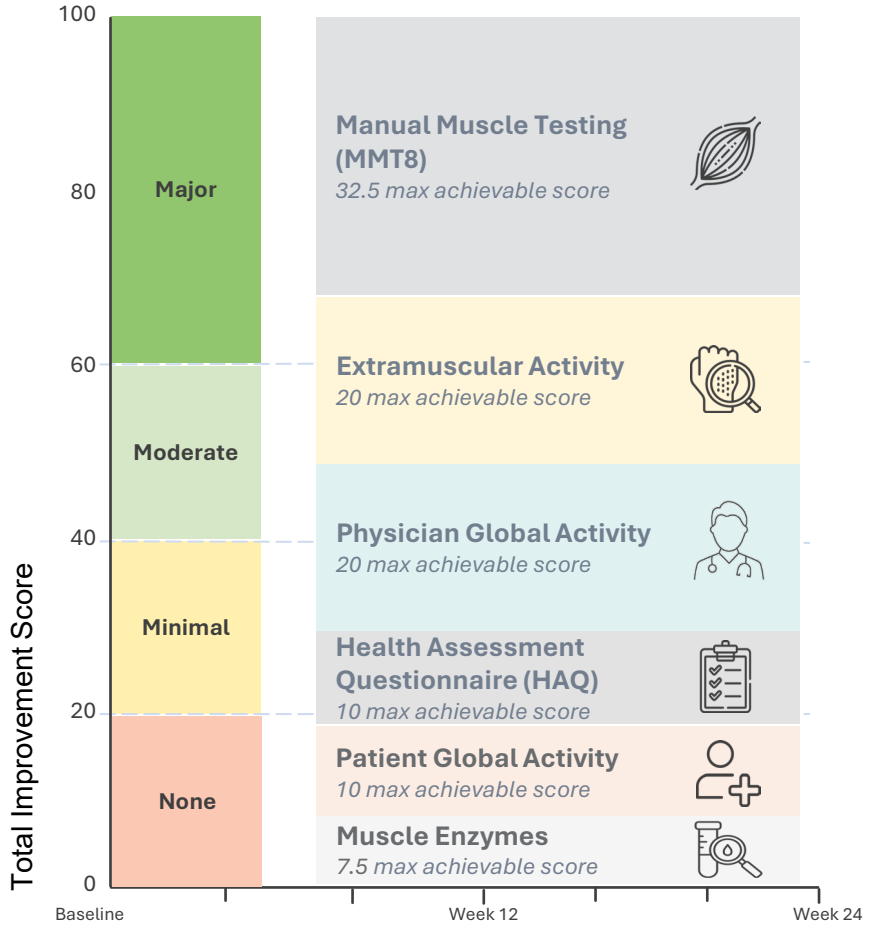
*Summary of several CAR T constructs published in myositis to date, not product specific.
ACR, American College of Rheumatology; ASyS, antisynthetase syndrome; BCMA, B-cell maturation antigen; CAR, chimeric antigen receptor; CD, cluster of differentiation; CRS, cytokine release syndrome; DM, dermatomyositis; EULAR, European Alliance of Associations for Rheumatology; ICANS, immune effector cell-associated neurotoxicity syndrome; ILD, interstitial lung disease; Min, minimal; MMF, mycophenolate mofetil; Mod, moderate.

1. Aggarwal A, et al. *J Rheumatol*. 2025;52(6):532–542. 2. Müller F, et al. *N Engl J Med*. 2024;390(8):687–700. 3. Müller F, et al. *Nat Med*. 2025;31(6):1793–1797. 4. Nicolai R, et al. *Arthritis Rheumatol*. 2024;76(10):1560–1565. 5. París-Muñoz A, et al. *Med*. 2025;6(8):100676.

TIS: Myositis Outcomes Captured Through Validated Composite Endpoint

A composite tool measuring a patient's relative improvement from their baseline

Total improvement score (TIS) components



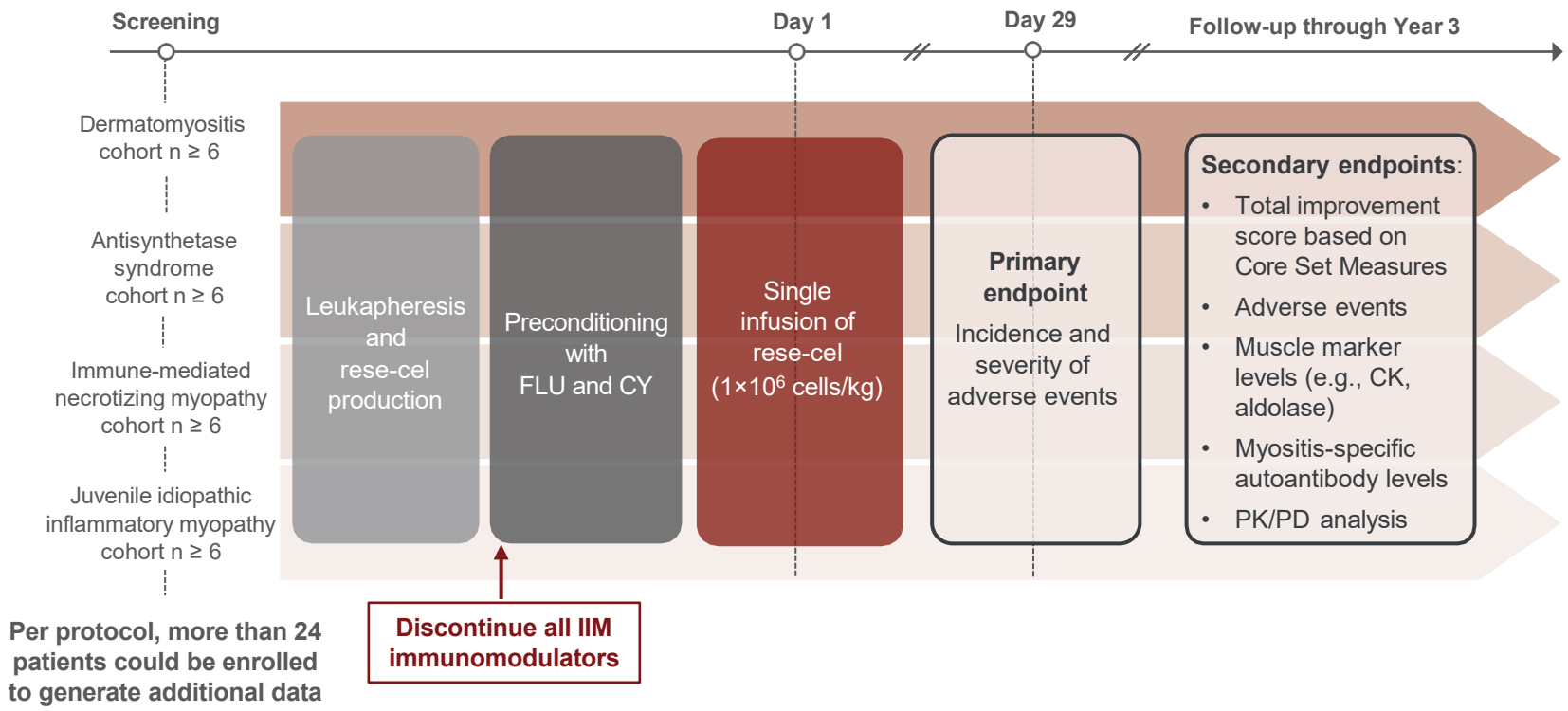
- TIS developed via conjoint analysis based continuous model using **absolute percentage change** in 6 core set measures (CSM): MMT8, Extramuscular Activity, Physician Global Activity, Health Assessment Questionnaire, Patient Global Activity, and Muscle Enzymes
- TIS is the sum of improvement scores in the 6 CSMs, with **ceiling of potential effect likely higher in DM and ASyS than in IMNM given minimal extramuscular involvement**

ASyS, antisynthetase syndrome; DM, dermatomyositis; IMNM, immune-mediated necrotizing myopathy.

Aggarwal R, et al. *NEJM*. 2022;387(14):1264–1278.

RESET *Myositis*™: Study Design[1,2]

Enrolling patients with moderate to severe disease that is refractory to standard of care



Key Inclusion Criteria[1,2]

- A definite or probable clinical diagnosis of IIM (2017 EULAR/ACR classification criteria)
- **For adult IIM cohorts**: Age ≥18 and ≤75 with a diagnosis of **dermatomyositis, antisynthetase syndrome, or immune-mediated necrotizing myopathy** based on presence of serum myositis-specific antibodies (MSA)
- **For JIIM cohort:** Age ≥6 and ≤17 with presence of at least one MSA or myositis-associated antibody (MAA)

Key Exclusion Criteria[1,2]

- Cancer-associated myositis or malignancy within the last 5 years
- Significant lung or cardiac impairment
- Previous CAR T cell therapy and/or HSCT
- Treatment with B cell-depleting agent within prior ~6 months

ACR, American College of Rheumatology; CAR, chimeric antigen receptor; CK, creatine kinase; CY, cyclophosphamide; EULAR, European Alliance of Associations for Rheumatology; FLU, fludarabine; HSCT, hematopoietic stem cell transplant; IIM, idiopathic inflammatory myopathy; JIIM, juvenile idiopathic inflammatory myopathy; MAA, myositis-associated antibody; MSA, myositis-specific antibodies; PK/PD, pharmacokinetic/pharmacodynamic; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance.

1. Cabaletta Bio – Data on File. 2. NCT06154252. Available online at: www.clinicaltrials.gov/study/NCT06154252 (accessed October 2025).

Baseline Characteristics: First 13 Patients in RESET-Myositis*

All patients had active, refractory disease despite multiple immunomodulatory agents, including IVIg and B cell-targeting therapies

	DM N=4	ASyS N=2	IMNM N=6	JIIM N=1
Mean age, years (min, max)	~58 (45, 72)	~44 (39, 48)	~55 (33, 64)	14
Female, n (%)	3 (75)	1 (50)	1 (17)	1 (100)
Years since diagnosis, mean (min, max)	3.0 (2.0, 3.6)	9.2 (3.6, 14.8)	4.5 (1.4, 8.8)	8.5
Myositis-specific autoantibody	50% TIF1-γ 25% NXP, 25% SAE	100% Jo-1	67% HMGCR 33% SRP	NXP-2
Baseline disease activity†				
Mean MMT-8	109.6	129.5	122.0	134.0
Median CK, U/L	40.0	311.5	2214.5	176.0
Mean CDASI-A	26	N/A	N/A	N/A
Prior RTX‡	75%	100%	50%	100%
Prior IVIg‡	100%	100%	83%	100%
Therapies at Screening				
Systemic GCs	75%	100%	67%	0
≤2 IMs	50%	50%	100%	0
≥3 IMs	50%	50%	0%	100%

*As of 11 Sep 2025.
†Baseline disease activity = activity before preconditioning; ‡Reflects any exposure to RTX and IVIg prior or at time of study entry. RTX is not allowed within approximately 6 months of Screening.
ASyS, antisynthetase syndrome; CDASI-A, Cutaneous Dermatomyositis Disease Area and Severity Index – Activity; CK, creatine kinase; DM, dermatomyositis; GC, glucocorticoid; HMGCR, 3-hydroxy-3-methylglutaryl-coenzyme A reductase; IM, immunomodulatory medication; IMNM, immune-mediated necrotizing myopathy; IVIg, intravenous immunoglobulin; JIIM, juvenile idiopathic inflammatory myopathy; MMT-8, manual muscle testing 8; NXP, nuclear matrix protein; N/A, not applicable; RESET, REstoring SElf-Tolerance; RTX, rituximab; SAE, small ubiquitin-like modifier activating enzyme; SRP, signal recognition particle; TIF1, transcription intermediary factor 1; U/L, units per liter.
Cabaletta Bio – Data on File.

RESET-Myositis: Incidence of Relevant and Related Serious Adverse Events*

Mild CRS (Grade 1) in 4 of 13 patients and no ICANS in any patients

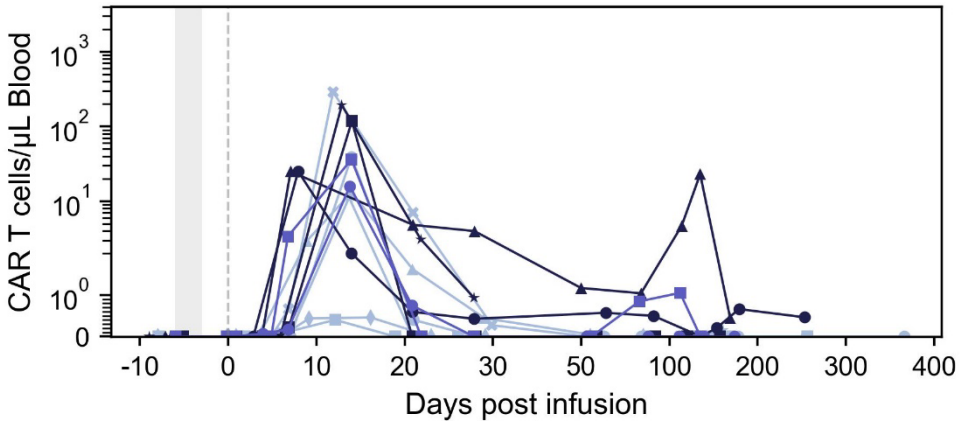
Cohort	DM				ASyS		IMNM						JIIM
Patient	DM-1	DM-2	DM-3	DM-4	ASyS-1	ASyS-2	IMNM-1	IMNM-2	IMNM-3	IMNM-4	IMNM-5	IMNM-6	JIIM-1
CRS†	None	Grade 1	None	None	Grade 1	Grade 1	None	None	Grade 1	None	None	None	None
ICANS†	None	None	None	None	None	None	None	None	None	None	None	None	None
Serious infections‡	None	None	None	None	None	None	None	None	None	None	None	None	None
Related SAEs (Grade)§ (excluding CRS and ICANS)	None	None	None	None	None	None	None	None	None	None	None	None	Febrile Neutropenia (2)

*As of 11 Sep 2025; primary endpoint of the Phase 1/2 study is incidence and severity of adverse events through Day 29. Serious infections and related SAEs are reported to latest follow-up.
†Graded per ASTCT Consensus Grading Criteria.
‡Coded in System Organ Class of Infections and Infestations and meets seriousness criteria.
§As assessed per US Food and Drug Administration guidelines.
ASTCT, American Society for Transplantation and Cellular Therapy; ASyS, antisynthetase syndrome; CRS, cytokine release syndrome; DM, dermatomyositis; ICANS, immune effector cell-associated neurotoxicity syndrome; IMNM, immune-mediated necrotizing myopathy; JIIM, juvenile idiopathic inflammatory myopathy; RESET, REstoring SElf-Tolerance; SAE, serious adverse event.
Cabaletta Bio: Data on File.

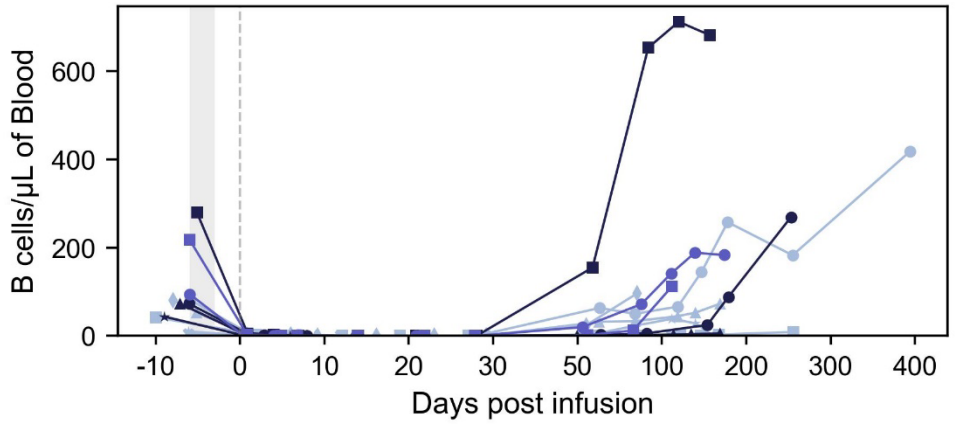
RESET-Myositis: Rese-cel Expansion and B Cell Kinetics*

Peak rese-cel expansion and complete and transient peripheral B cell depletion occurred within 1 to 2 weeks post-infusion in all patients

Rese-cel Pharmacokinetics



B Cell Kinetics



IMNM-1
IMNM-2
IMNM-3
IMNM-4
IMNM-5
IMNM-6
DM-1
DM-2
DM-3†
DM-4
ASyS-1
ASyS-2

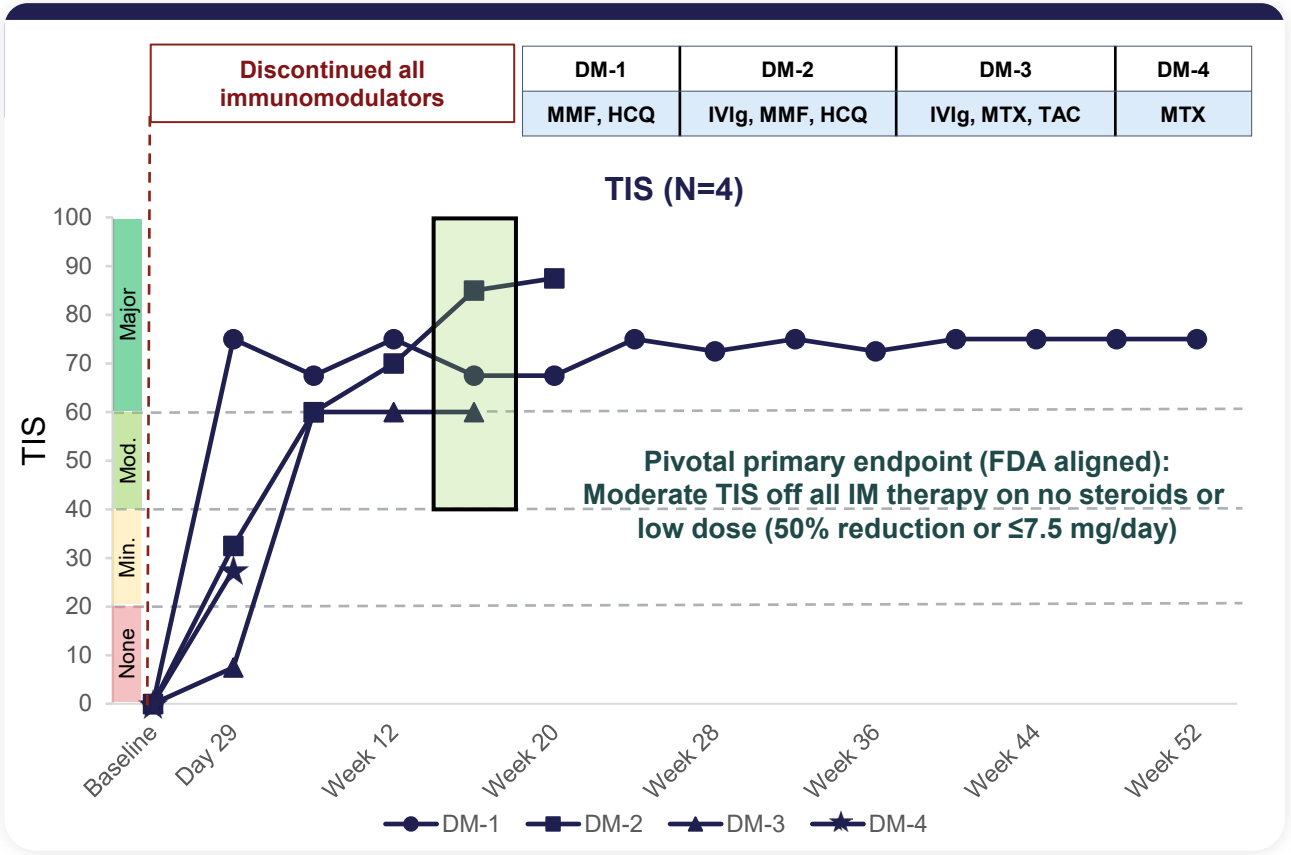
Peripheral B cells began repopulating 2–3 months after rese-cel infusion with transitional naïve cells, indicating B cell reset in patients with sufficient follow-up data

*All data is as of 11 Sep 2025, except DM-3 which includes Week 24 data as of 08 Oct 2025.
†DM-3 rese-cel PK at Week 20 was artifactually elevated due to low circulating lymphocyte counts.
ASyS, antisynthetase syndrome; DM, dermatomyositis; IMNM, immune-mediated necrotizing myopathy; rese-cel, resecabtagene autoleuce; RESET, REstoring SElf-Tolerance.
Cabaletta Bio: Data on File.

RESET-Myositis: Efficacy Data in DM Patients Following Rese-cel Infusion*

3 of 3 patients with DM and sufficient follow-up achieved at least moderate TIS response at Week 16 following rese-cel infusion

Assessment at Week 16	DM Patients (baseline autoantibody)			
	DM-1 (SAE)	DM-2 (None detected†)	DM-3 (TIF1-γ)	DM-4 (TIF1-γ)
IM-free	✓	✓	✓	✓‡
Low dose or no GC	✓	✓	✓	✓‡
TIS Response	Major	Major	Major	N/A§
Complete and transient B cell depletion	✓	✓	✓	✓‡
Antibody trend¶	↓	N/A	↓	N/A§
Meets pivotal primary endpoint	✓	✓	✓	N/A§



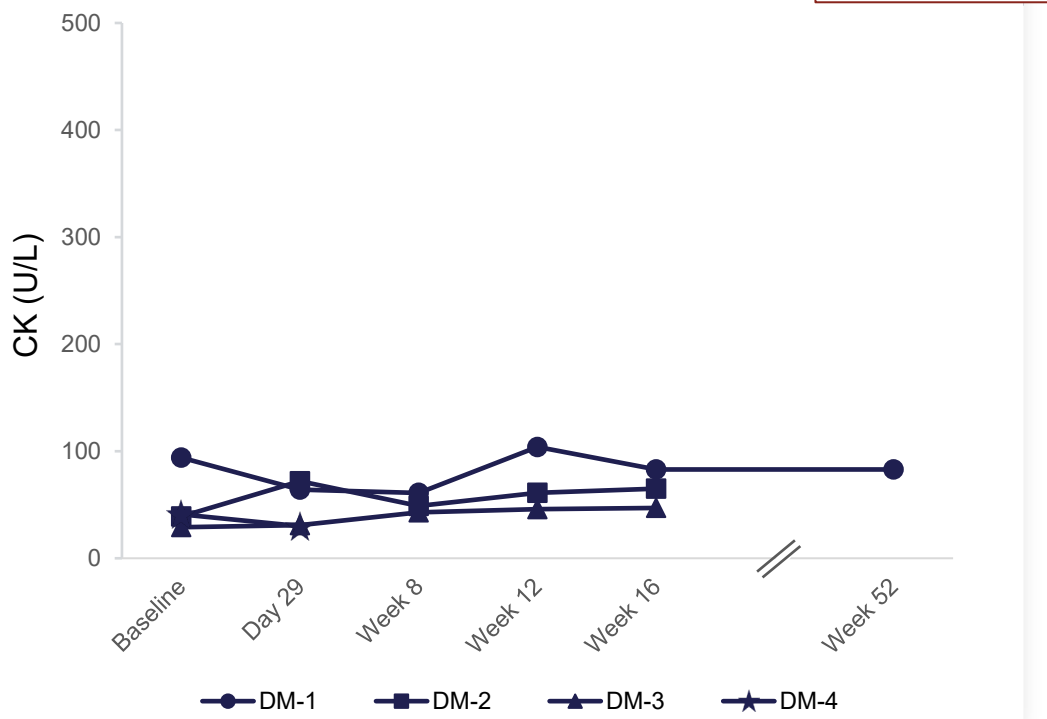
After discontinuation of all IM medications, 3 of 3 DM patients achieved the FDA-aligned 16-week primary endpoint for the upcoming pivotal study of at least moderate TIS response

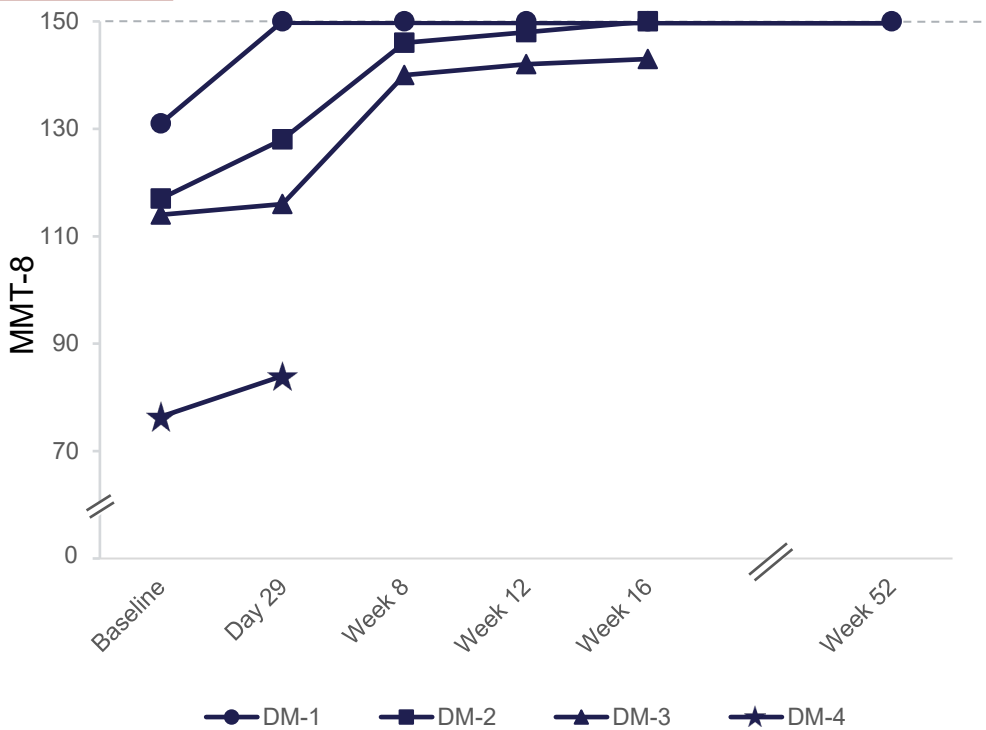
*As of 11 Sep 2025.
†Historical NXP-2 autoantibody, but none detected at Pre-preconditioning (Baseline) visit. ‡At latest follow-up (Day 29). §Insufficient follow-up. ¶Reflects trend from baseline to latest timepoint.
DM, dermatomyositis; FDA, Food and Drugs Administration; GC, glucocorticoid; HCQ, hydroxychloroquine; IM, immunomodulatory medication; IVIg, intravenous immunoglobulin; mg, milligrams; MMF, mycophenolate mofetil; MTX, methotrexate; N/A, not available; NXP, nuclear matrix protein; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SAE, small ubiquitin-like modifier activating enzyme; TAC, tacrolimus; TIF1-γ, transcription intermediary factor 1 gamma; TIS, total improvement score.
Cabaletta Bio: Data on File.

RESET-Myositis: Efficacy Data in DM Patients Following Rese-cel Infusion*

All patients with DM show improvement in muscle strength on MMT-8 following rese-cel and normal CK levels

Discontinued all immunomodulators at baseline





Clinical responses to rese-cel among DM patients show potential for achieving drug-free remission in patients with refractory myositis

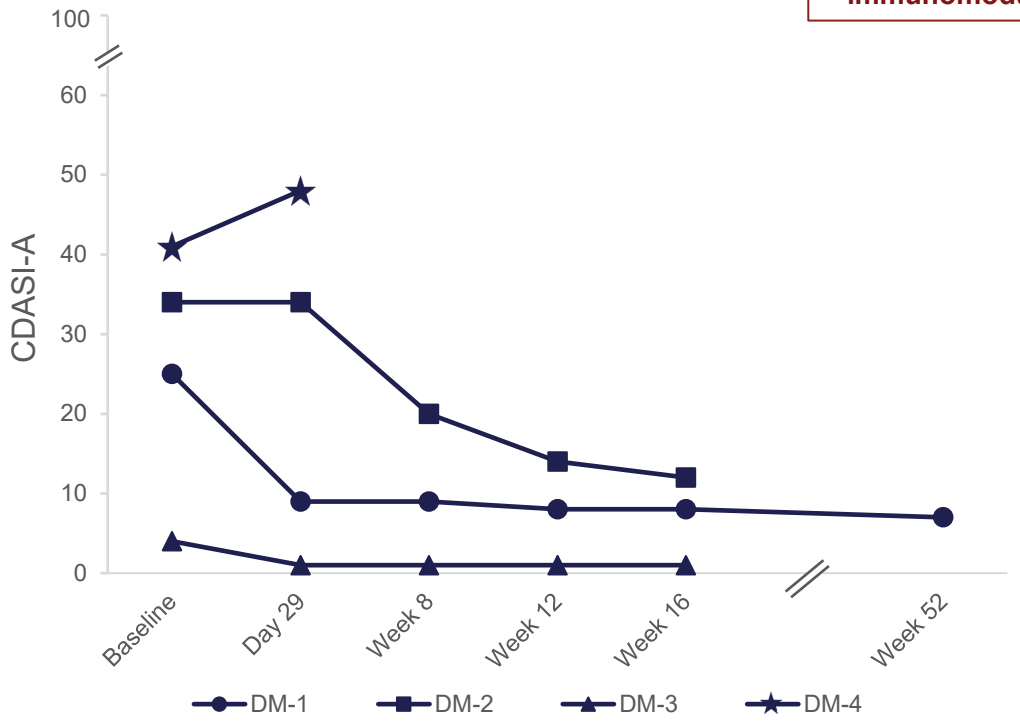
*As of 11 Sep 2025.
†DM-4 MMT-8 measurements were normalized to a total score of 150; not all muscle groups could be evaluated.
CK, creatine kinase; DM, dermatomyositis; MMT-8, manual muscle testing 8; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; TIS, total improvement score; U/L, units per liter.
Cabaletta Bio: Data on File.

RESET-Myositis: Efficacy in DM Patients Following Rese-cel Infusion*

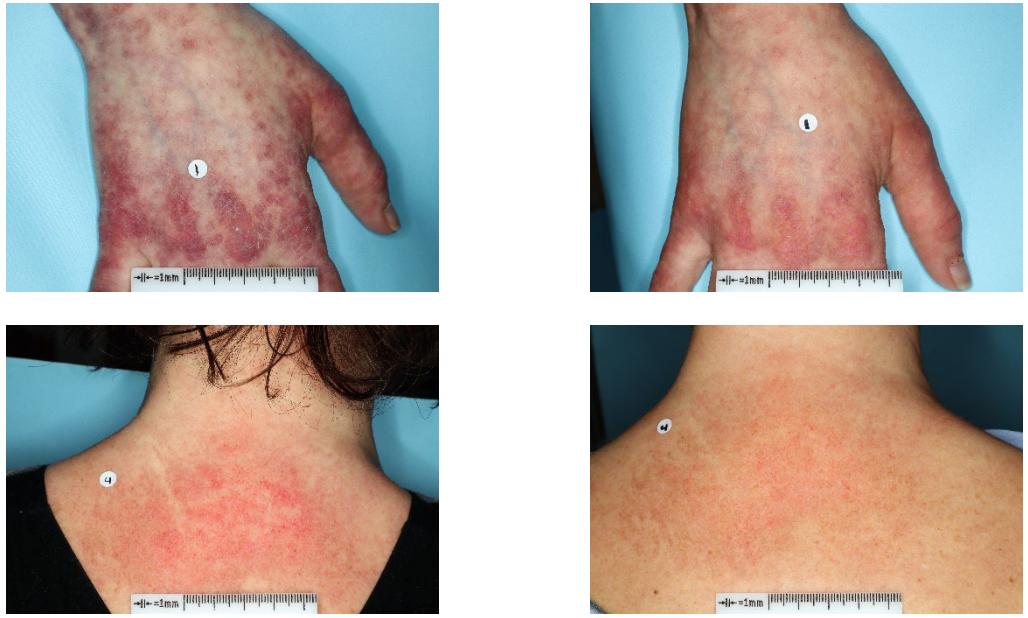
Early clinical responses in DM skin manifestations have been observed off immunomodulators

CDASI-A (N=4)

Discontinued all immunomodulators at baseline



Skin images (DM-2)†



Baseline **Week 12**

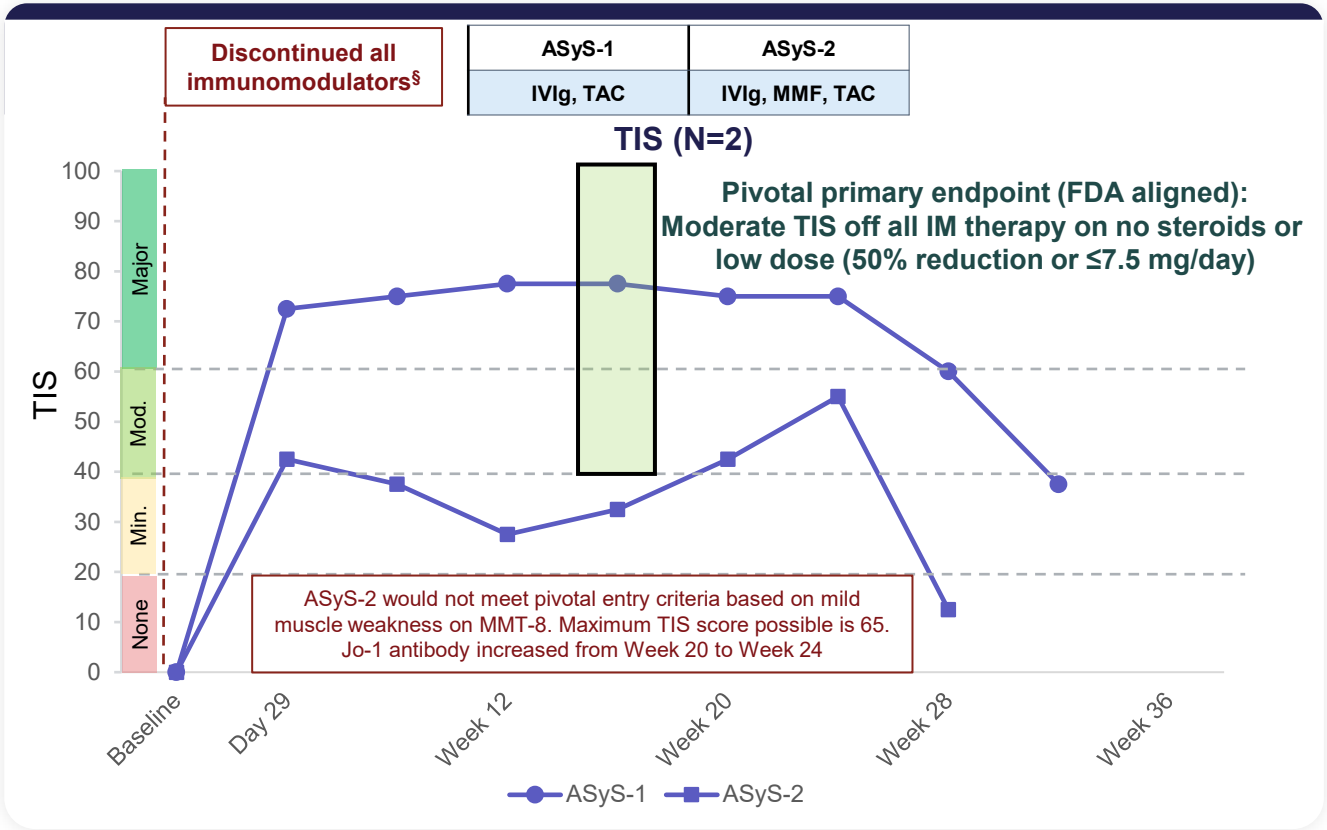
First known adult DM patients dosed with CAR T demonstrated early and clinically visible CDASI-A response off immunomodulators

*As of 11 Sep 2025.
†Participant provided consent to optional clinical photography.
CAR, chimeric antigen receptor; CDASI-A, Cutaneous Dermatomyositis Disease Area and Severity Index – Activity; DM, dermatomyositis; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance.
Cabaletta Bio: Data on file.

RESET-Myositis: Efficacy in ASyS Patients Following Rese-cel Infusion[1]*

1 of 2 patients with ASyS achieved at least moderate TIS response at Week 16 following rese-cel infusion

Assessment at Week 16	ASyS (baseline autoantibody)	
	ASyS-1 (Jo-1)	ASyS-2 (Jo-1)
IM-free	✓	✓
Low dose or no GC	✓	✓
TIS response	Major	Minimal
Complete and transient B cells depletion	✓	✓
Antibody trend†	↓‡	↓→‡
Meets pivotal primary endpoint	✓	✗



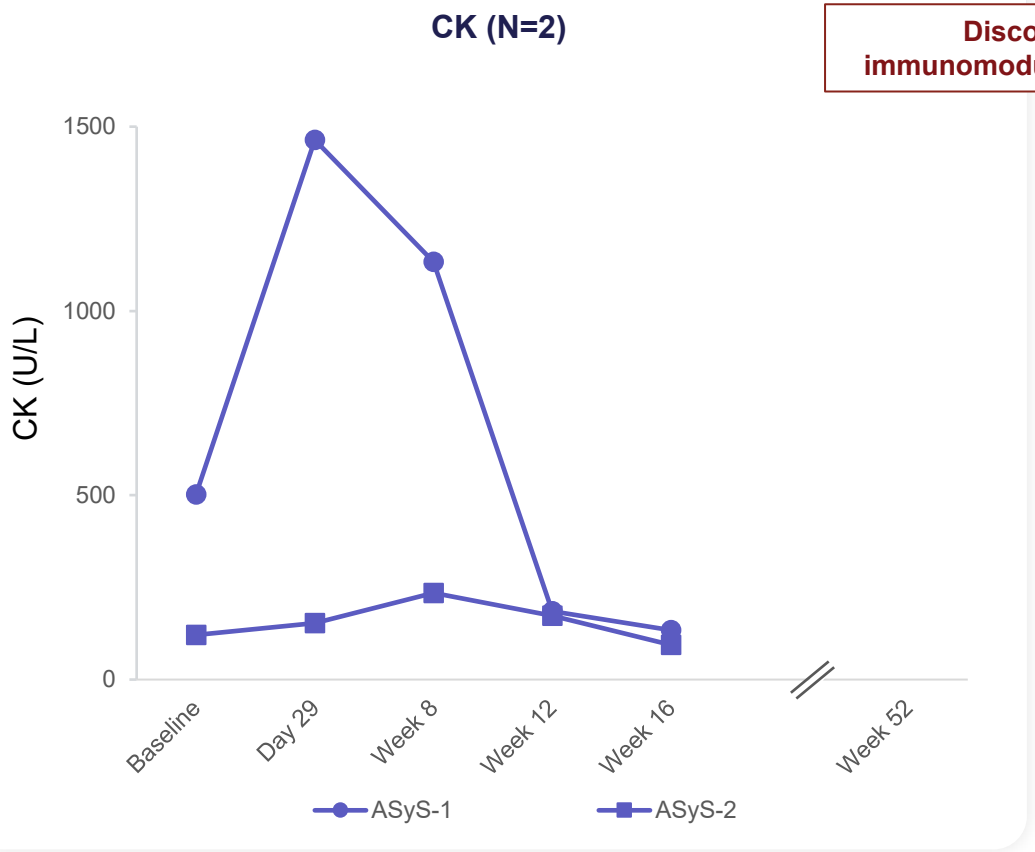
Responses to rese-cel among some ASyS patients may be time-limited by the recurrence or persistence of pathogenic autoantibodies[2–4] from CD19-negative long-lived plasma cells despite complete B cell depletion

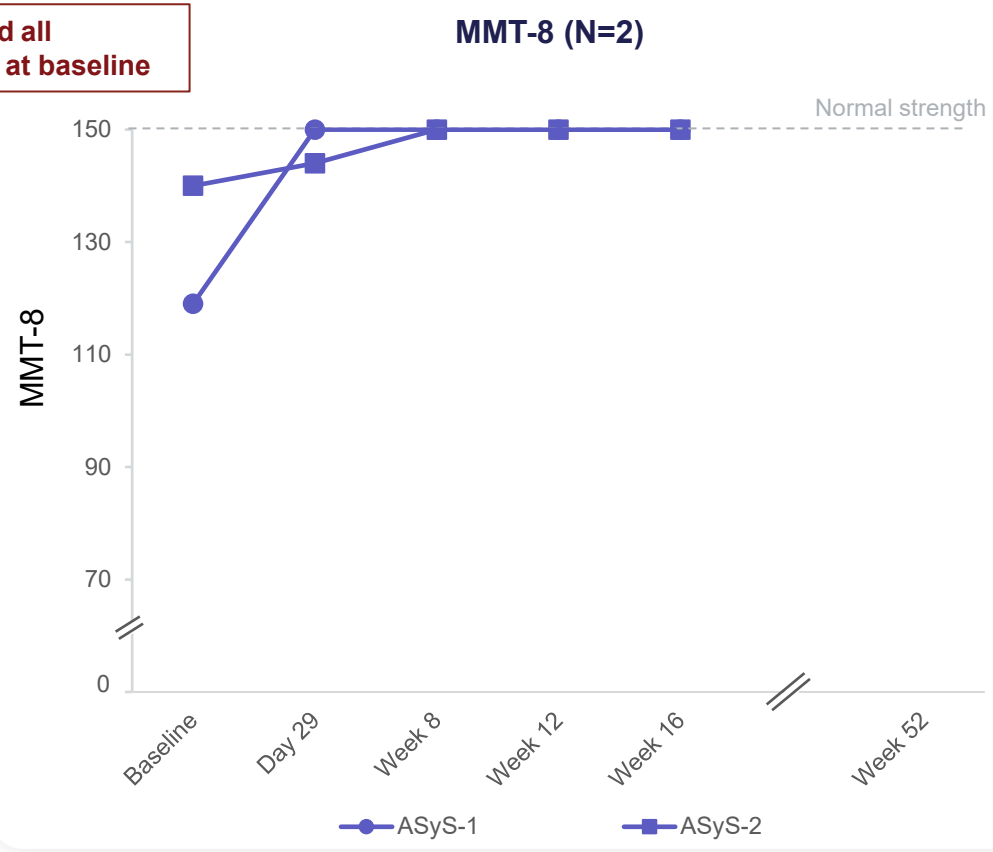
*As of 11 Sep 2025.
†Reflects trend from baseline to latest timepoint antibody; results are available (Week 24 for both patients). In ASyS-2, Jo-1 antibody level trended up from Week 20 to Week 24 but was lower than baseline. ‡Based on the research-based, qualified, quantitative Luminex assay. §ASyS-1 to minimal response at latest follow-up (Week 32); treated with GC bursts and obinutuzumab; ASyS-2 to no response at latest follow-up (Week 28); treated with GC burst.
ASyS, antisynthetase syndrome; FDA, Food and Drugs Administration; GC, glucocorticoid; IM, immunomodulatory medication; IVIg, intravenous immunoglobulin; mg, milligrams; MMF, mycophenolate mofetil; N/A, not available; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; TAC, tacrolimus; TIS, total improvement score.
1. Cabaletta Bio: Data on File. 2. Pinal-Fernandez I, et al. *Ann Rheum Dis*. 2024;83(11):1549–1560. 3. Galindo-Feria AS, et al. *Best Pract Res Clin Rheumatol*. 2022;36(2):101767. 4. Müller, F, et al. *Nat Med*. 2025:31(6):1793–1797.

RESET-Myositis: Efficacy in ASyS Patients Following Rese-cel Infusion*

Patients with ASyS achieve improvements in CK levels and normalization of MMT-8 following rese-cel by Week 16

Discontinued all immunomodulators at baseline





*As of 11 Sep 2025.
ASyS, antisynthetase syndrome; CK, creatine kinase; MMT-8, manual muscle testing 8; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; U/L, units per liter.
Cabaletta Bio: Data on File.

Key Takeaways: Focus on Myositis

RESET Myositis™

Myositis has significant unmet medical need and is associated with disability, high morbidity, and high mortality

- Rese-cel was generally well tolerated across 13 IIM patients treated to date, including one patient with JIIM*
  - Grade 1 CRS in 4 of 13 patients
  - No ICANS in any of the 13 patients
- Rese-cel peak expansion was observed at approximately 12 days after infusion
- B cells were completely and transiently depleted in peripheral blood within 1–2 weeks following rese-cel infusion
  - Transitional naïve B cells began repopulating within 2 to 3 months, indicating B cell reset
- After discontinuing IM medications, patients demonstrated compelling clinical responses following rese-cel infusion
  - DM: 3 of 3 patients with sufficient follow-up achieved IM-free moderate TIS response or greater at Week 16
  - ASyS: 1 of 2 patients achieved IM-free moderate TIS response or greater at Week 16
  - IMNM: Responses often limited despite complete B cell elimination and an apparent immune reset in the setting of persistent autoantibodies (full data to be presented tomorrow)

Based on these data, Cabaletta Bio is planning to initiate a pivotal cohort in DM & ASyS this year (FDA-aligned): 14 patients with 16-week primary endpoint of moderate TIS off IM & on no steroids or low dose†

*As of 11 Sep 2025.
†Low dose steroids is defined as 50% reduction from baseline or ≤7.5 mg/day.
ASyS, antisynthetase syndrome; CRS, cytokine release syndrome; DM, dermatomyositis; FDA, US Food and Drug Administration; ICANS, immune effector cell-associated neurotoxicity syndrome; IIM, idiopathic inflammatory myopathy; IM, immunomodulatory medication; IMNM, immune-mediated necrotizing myopathy; JIIM, juvenile idiopathic inflammatory myopathy; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; TIS, total improvement score.
Cabaletta Bio: Data on File.

FDA Aligned on Key Design Elements of Myositis Registrational Cohort

FDA alignment achieved in Type C meeting; single-arm evaluation of DM/ASyS sub-types at 16 weeks in a 14-patient cohort

- ✓ Expansion of current RESET-Myositis trial to include registrational cohort in DM/ASyS (60k US patients / 15k US patients)
- ✓ **Primary Endpoint**: Moderate or Major TIS response @ Week 16 off all immunomodulators and off, or on low-dose, steroids*
- ✓ Confirmed current dose of 1 million cells/kg in a single infusion
- ✓ Safety database ~100 autoimmune patients at ≥1-month of follow-up (with at least 35 myositis patients)
  - ~ 70% of the safety database already enrolled across the RESET clinical development program[3]

2027 BLA submission planned in DM/ASyS; initiation of registrational cohort anticipated in 2025

TIS, total improvement score.
*Low dose steroids is defined as 50% reduction from baseline or ≤7.5 mg/day.

1. Pediatric submission based on data available at the time of adult submission from ongoing Ph 1/2 study (no new study) to support pediatric label claim
2. Size of myositis registrational cohort based on key statistical parameters aligned upon with the FDA and background remission rate in myositis.
3. As of Oct 17, 2025.

Cabaletta Bio®

CAR T in Autoimmune Disease: Focus on Systemic Sclerosis

Dinesh Khanna

Systemic Sclerosis: Profound Unmet Need and Limited Treatment Options

Affects ~90K U.S. patients;[1] associated with progressive morbidity and high mortality[2–4]

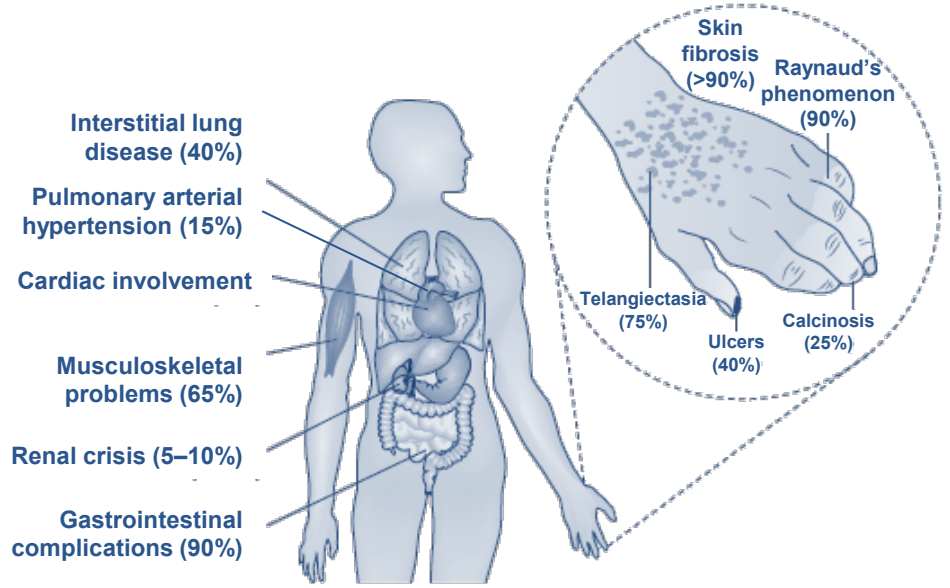
A rare, potentially fatal chronic autoimmune disease[2]

- Characterized by progressive skin and internal organ fibrosis[2]
- Distinction between disease activity and damage is a challenge – the SCTC developed both an activity and damage index to help[5]

High burden on function and quality of life

- Disproportionately impacts women, with less favorable outcomes in people of color[2]
- SSc is associated with the highest mortality of all rheumatological diseases and significant burden from persistent skin and organ manifestations[6,7]
- There is a need for disease-modifying therapies[7]

Potential manifestations[2]



SCTC, Scleroderma Clinical Trial Consortium; SSc, systemic sclerosis.

1. Fan Y, et al. *J Manag Care Spec Pharm.* 2020;26(12):1539–1547. 2. Allanore Y, et al. *Nat Rev Dis Primers.* 2015;1:15002. 3. Denton CP, et al. *Lancet.* 2017;390(10103):1685–1699. 4. Jaafar S, et al. *Arthritis Res Ther.* 2021;23(1):170. 5. Ross L, et al. *Arthritis Rheumatol.* 2024;76(11):1635–1644. 6. Truchetet ME, et al. *Clin Rev Allergy Immunol.* 2023;64(3):262–283. 7. Pope JE, et al. *Nat Rev Rheumatol.* 2023;19(4):212–226.

Treatment Recommendations for SSc: EULAR 2023 Update

Immunosuppressants and supportive care remain the mainstay of treatment, with only modest effect on long-term disease progression

SSc clinical domains	Raynaud's phenomenon	Digital ulcers	Pulmonary arterial hypertension	Musculo-skeletal	Skin fibrosis	Interstitial lung disease	Gastro-intestinal	Renal crisis
Strength of recommendation A	CCB PDE5i ILOPROST	PDE5i BOSENTAN ILOPROST	PDE5i ENDOTHELIN RECEPTOR ANTAGONISTS ILOPROST		RTX MTX	RTX MMF CYC NINTEDANIB		
B			RIOCIGUAT SELEXIPAG		MMF	TOCILIZUMAB	PROTON PUMP INHIBITORS	NO ACE INHIBITORS for prevention
C			NO WARFARIN		TOCILIZUMAB		PROKINETICS	ACE INHIBITORS
D				MTX			ANTIBIOTICS	

Stem Cell Transplant: High-intensity immunosuppression (usually including CYC) followed by autologous HSCT may be considered for the treatment of selected patients with early dcSSc and poor prognosis, in the absence of advanced cardiorespiratory involvement

ACE, angiotensin-converting enzyme; CCB, calcium channel blocker; CYC, cyclophosphamide; dcSSc, diffuse cutaneous systemic sclerosis; EULAR, European Alliance of Associations for Rheumatology; HSCT, hematopoietic stem cell transplantation; MMF, mycophenolate mofetil; MTX, methotrexate; PDE5i, phosphodiesterase five inhibitors; RTX, rituximab; SSc, systemic sclerosis.

Del Galdo F, et al. *Ann Rheum Dis*. 2025;84(1):29–40.

Management of SSc Over a Decade in a Multicenter Cohort

Most patients require chronic administration of immunomodulatory therapies

12 US Scleroderma Centers

301 Participants with early† dcSSc or at-risk for dcSSc

Mean disease duration of 1.2 years

Majority are on MMF

- **40.2%** at baseline
- **68.8%** anytime during the study

Immunomodulatory therapies among all PRESS participants at any time during the study (N=301)

Treatments	Baseline Only	Any time during study*
Mycophenolate mofetil, n (%)	121 (40.2)	207 (68.8)
Dose (mg/day), mean (±SD)	1876.9 (±737.0)	2045.4 (±644.5)
Methotrexate, n (%)	42 (14.0)	64 (21.3)
Dose (mg/week), mean (±SD)	14.9 (±6.8)	15.8 (±5.6)
Cyclophosphamide, n (%)	6 (2.0)	15 (5.0)
Dose (mg/day), mean (±SD)	33.6 (±14.4)	44.4 (±27.0)
D-penicillamine, n (%)	5 (1.7)	8 (2.7)
Dose (mg/day), mean (±SD)	650.0 (±285.0)	686.9 (±246.6)
Hydroxychloroquine, n (%)	39 (13.0)	53 (17.6)
Dose (mg/day), mean (±SD)	319.4 (±103.7)	317.8 (±97.1)
Azathioprine, n (%)	5 (1.7)	7 (2.3)
Dose (mg/day), mean (±SD)	115.0 (±41.8)	110.7 (±34.9)
Any immunomodulatory therapy, n (%)	190 (63.1)	260 (86.4)
Autologous hematopoietic stem cell transplantation, n (%)	1 (0.3)	4 (1.3)
Prednisone, n (%)	90 (29.9)	127 (42.2)
Dose (mg/day), mean (±SD)	9.9 (±7.9)	9.2 (±5.2)

***Any time: including all patients with this medication any time during follow-up and/or at baseline**

† ≤2 years since the first non-Raynaud's phenomenon symptom.

dcSSc, diffuse cutaneous systemic sclerosis; MMF, mycophenolate mofetil; PRESS, Prospective Registry of Early Systemic Sclerosis; SD, standard deviation; SSc, systemic sclerosis.

Jaafar S, et al. *Arthritis Res Ther*. 2021;23(1):170.

High Morbidity and Mortality in SSc Despite Widespread Use of Immunomodulatory Therapies

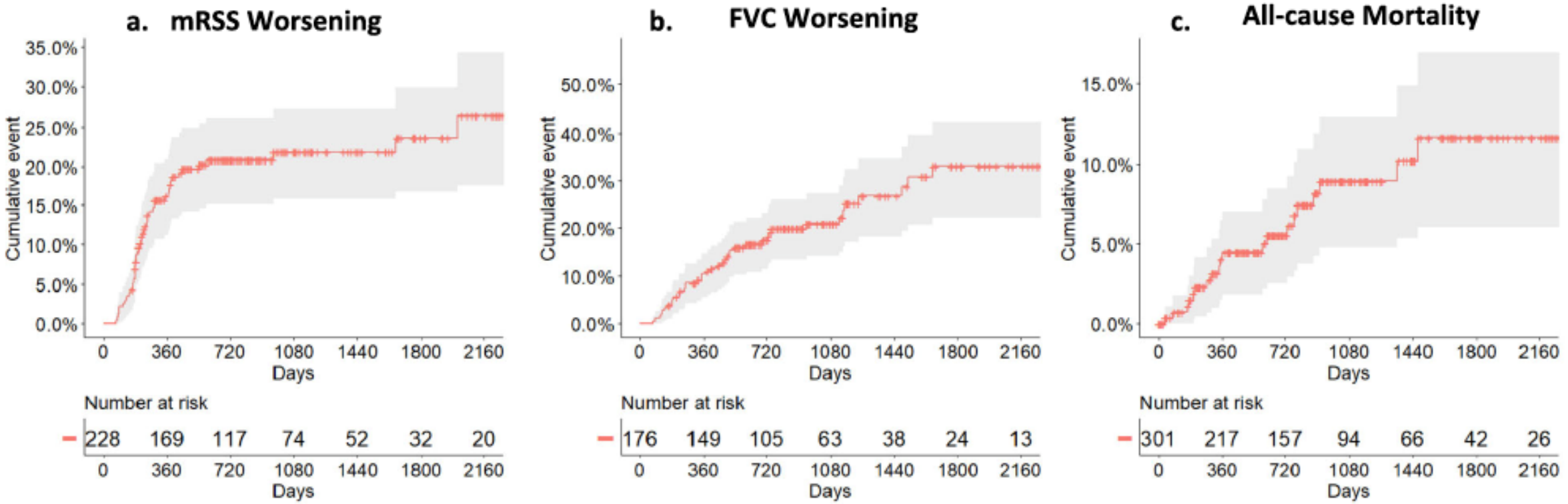


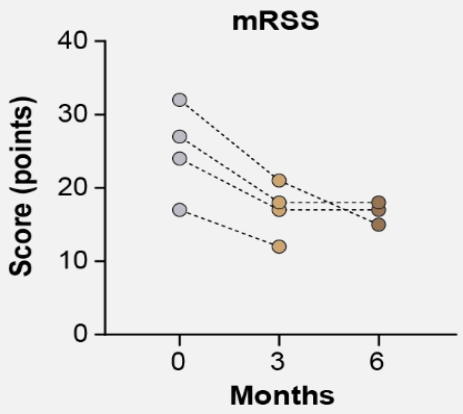
Fig. 1 Cumulative skin fibrosis worsening, FVC (%pred) worsening, and all-cause mortality events during the course of the study. **a** Clinically significant worsening of skin fibrosis was defined as an absolute increase of mRSS ≥ 5 units or ≥ 25% as compared to baseline mRSS. **b** Significant functional progression of ILD was defined as an absolute FVC decline of ≥ 10% as compared to baseline FVC. **c** Patients' vital status was confirmed from medical records or death certificates. mRSS modified Rodnan skin score, FVC forced vital capacity. Gray area corresponds to the 95% confidence interval

FVC, forced vital capacity; ILD, interstitial lung disease; mRSS, modified Rodnan skin score; SSc, systemic sclerosis.

Jaafar S, et al. *Arthritis Res Ther.* 2021;23(1):170.

Published Clinical Data on CAR T to Date: Systemic Sclerosis[1]*

University of Erlangen data in six adult patients with severe, refractory SSc with active skin and organ involvement treated with CD19-CAR T cell therapy:[2,3]



- Decrease from baseline in global EUSTAR disease activity and mRSS skin activity without other therapies maintained up to 16 months (n=4, 6-month data shown)
- Favorable safety data, with no ICANS observed and grade 2 CRS observed in 1 patient and grade 1 CRS (fever) observed in 3 of 6 patients
- No progression of organ manifestations was observed

Case study of an ATA-positive SSc patient with rapid progressive NSIP[1,4]

- Due to the lack of initial treatment response to CD19-CAR T therapy, mycophenolate and nintedanib were re-initiated. Nonetheless, the CAR-T procedure led to the progressive improvement of skin and SSc-ILD
- **First report indicating the possibility of pulmonary improvement in autoimmune PPF**

~10 CAR T clinical trials in SSc are ongoing[1]

*Summary of several CAR T constructs published in SSc to date, not product specific.
ATA, anti-topoisomerase antibodies; CAR, chimeric antigen receptor; CD, cluster of differentiation; CRS, cytokine release syndrome; EUSTAR, European Scleroderma Trials and Research group; ICANS, immune effector cell-associated neurotoxicity syndrome; ILD, interstitial lung disease; mRSS, modified Rodnan skin score; NSIP, non-specific interstitial pneumonia; PPF, progressive pulmonary fibrosis; rese-cel, resecabtagene autoleucel; SSc, systemic sclerosis.
1. Lescoat A, et al. *Expert Rev Clin Immunol.* 2025;21(1):29–43. 2. Müller F, et al. *N Engl J Med.* 2024;390(8):687–700. 3. Auth J, et al. *Lancet Rheumatol.* 2025 7(2):e83–e93. 4. Merkt W, et al. *Ann Rheum* Dis. 2024;83(4):543–546.

SSc Trial Design: From Organ-Specific to Composite Endpoints

Modified Rodnan Skin Score[1]

- A measure of skin thickness in SSc across 17 body areas, with a maximum score of 51
- Each body area is scored 0-3
  - 0=normal
  - 1=definite but mild
  - 2=moderate
  - 3=severe
- MCID ≥ 5 units (for dcSSc)[2]

rCRISS-25[3]

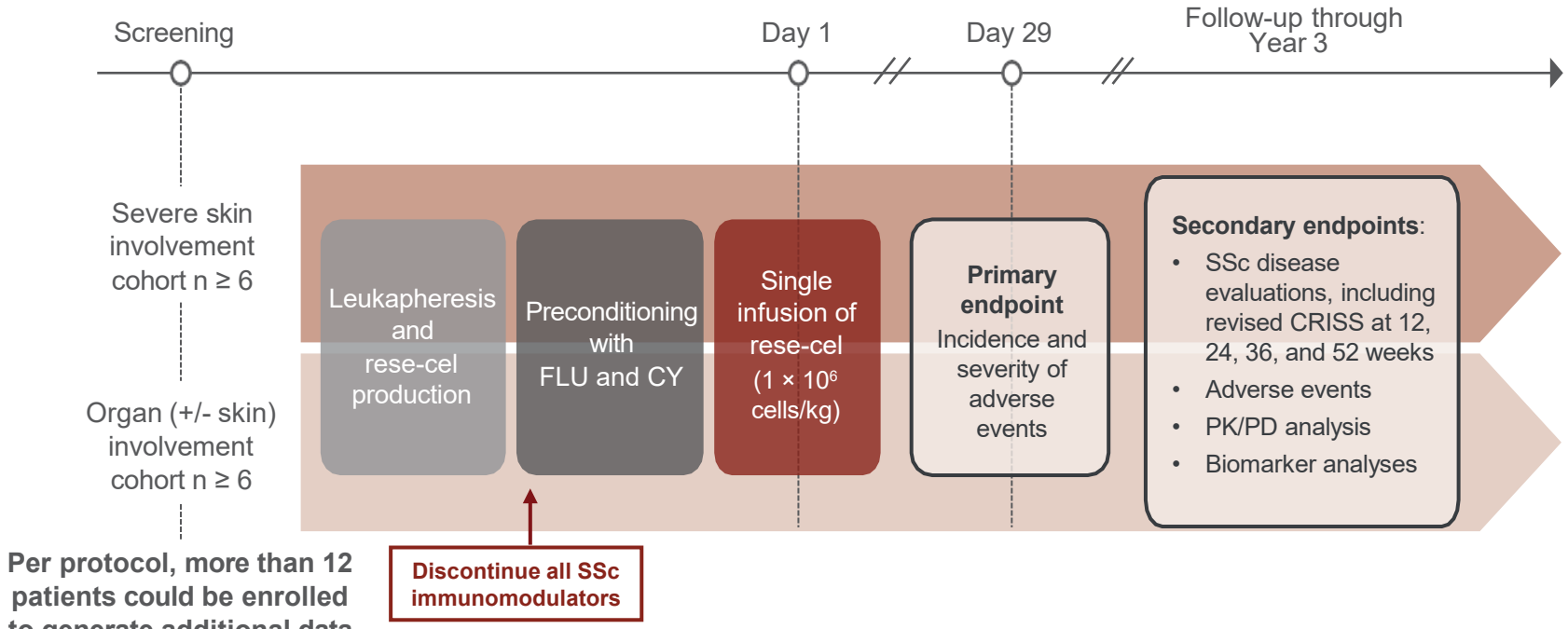
Steps	Description	Responder Considerations
1	Accounts for worsening or incident cases of any internal organ involvement	Subjects are considered non-responder if they meet any of the Step 1 criteria
2	5 core set measures: • FVC% • mRSS • HAQ-DI • PtGA • PGA	Subjects must demonstrate ≥25% improvement in at least 2 of 5 core set measures (with ≥5% for FVC%) without worsening on no more than 1 core set measure or in at least 3 of 5 core set measures (with ≥5% for FVC%)

dcSSc, diffuse cutaneous systemic sclerosis; FVC, forced vital capacity; HAQ-DI, Health Assessment Questionnaire-Disability Index; MCID, Minimal Clinically Important Difference; mRSS, modified Rodnan skin score; PGA, Physician Global Assessment; PtGA, Patient Global Assessment; rCRISS, Revised Composite Response Index in Systemic Sclerosis; SSc, systemic sclerosis.

1. Khanna D, et al. *J Scleroderma Relat Disord.* 2017;2(1):11–18. 2. Khanna D, et al. *Arthritis Res Ther.* 2019;21(1):23. 3. Khanna D, et al. *Ann Rheum Dis.* 2021;80(5):641–650.

RESET-SSc™ Study Design[1,2]

Enrolling patients with moderate to severe disease that is refractory to standard of care



Key Inclusion Criteria[1,2]

- Age ≥18 and ≤70 with a limited or diffuse SSc diagnosis (2013 EULAR/ACR classification criteria)
- Early, active disease
- Evidence of significant skin, pulmonary, renal, or cardiac involvement

Key Exclusion Criteria[1,2]

- Severe pulmonary or cardiac impairment
- Treatment with B cell-depleting agent within prior ~6 months
- Previous CAR T cell therapy and/or HSCT

ACR, American College of Rheumatology; CAR, chimeric antigen receptor; CRISS, Composite Response Index in Systemic Sclerosis; CY, cyclophosphamide; EULAR, European Alliance of Associations for Rheumatology; FLU, fludarabine; HSCT, hematopoietic stem cell transplant(ation); PK/PD, pharmacokinetic/pharmacodynamic; rese-cel, resecabtagene autoleucel; RESET, REstoring Self Tolerance; SSc, systemic sclerosis.

1. Cabaletta Bio – Data on File. 2. NCT06328777. Available at: www.clinicaltrials.gov/study/NCT06328777 (accessed October 2025).

Baseline Characteristics: First 6 Patients in RESET-SSc*

All patients had active, refractory disease and were on 1 to 3 disease-specific therapies at screening

	Severe Skin Cohort			Organ Cohort		
Patient / Cohort	**SSc-Skin-1**	**SSc-Skin-2**	**SSc-Skin-3**	**SSc-Organ-1**	**SSc-Organ-2**	**SSc-Organ-3**
Age, sex	66 F	55 F	59 M	70 M	43 F	60 F
Disease duration (y)	~2	~0.5	~2	~5	~2	~1
Autoantibodies	RNA Pol III	Scl-70	RNA Pol III	–	Scl-70	Scl-70
Baseline† mRSS	**42**	**38**	**45**	**12**	**9**	**24**
Baseline† HAQ-DI	2.25	2.125	2.875	0.75	0.50	2.50
Baseline† PFTs (% predicted)	FVC: 91 DLCO: 70	FVC: 93 DLCO: 58	FVC: 50 DLCO: 89	FVC: 69 DLCO: 58	FVC: 76 DLCO: 66	FVC: 83 DLCO: 78
ILD presence‡	✓	–	–	✓	✓	✓
Therapies at Screening	MMF	GC, MPA	MMF	MMF, TOC, NIN	GC, TOC	MMF, IVIg, HCQ

*As of 11 Sep 2025; primary endpoint is incidence and severity of adverse events through Day 29.
†Baseline disease activity = activity before preconditioning.
‡Per patient history and HRCT.
DLCO, % predicted diffusing capacity for carbon monoxide; FVC, forced vital capacity; GC, glucocorticoid; HAQ-DI, Health Assessment Questionnaire Disability Index; HCQ, hydroxychloroquine; HRCT, high-resolution computed tomography; ILD, interstitial lung disease; IVIg, intravenous immune globulin; MMF, mycophenolate mofetil; MPA, mycophenoloic acid; mRSS, modified Rodnan skin score; NIN, nintedanib; SAE, serious adverse event; PFT, pulmonary function test; RESET, REstoring SElf-Tolerance; RNA Pol III, ribonucleic acid polymerase III; Scl-70, anti–topoisomerase I antibody; SSc, systemic sclerosis; TOC, tocilizumab; y, years.
Cabaletta Bio: Data on File.

RESET-SSc: Incidence of Relevant and Related Serious Adverse Events*

	Severe Skin cohort			Organ Cohort		
Patient	**SSc-Skin-1**	**SSc-Skin-2**	**SSc-Skin-3**	**SSc-Organ-1**	**SSc-Organ-2**	**SSc-Organ-3**
CRS†	Grade 2¶	None	Grade 1	None	None	Grade 1
ICANS†	None	Grade 3**	None	None	None	None
Serious infections‡	None	None	None	None	None	None
Related SAEs (Grade)§ (Excluding CRS/ICANS)	None	Neutropenic fever (1)	Hypercapnic Respiratory Failure (4) Encephalopathy (4)	None	None	None

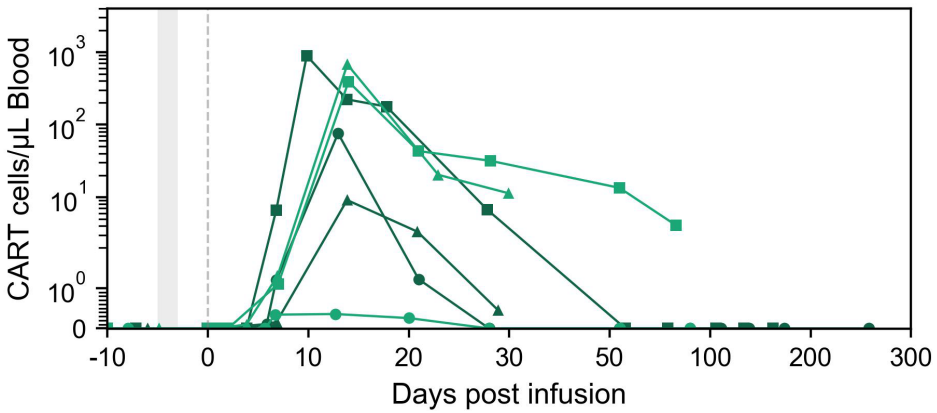
No CRS in 3 patients, Grade 1 CRS in 2 patients, and Grade 2 CRS in 1 patient (previously presented).
No ICANS in 5 patients, Grade 3 ICANS in 1 patient (previously presented)

*As of 11 Sep 2025; primary endpoint of the Phase 1/2 study is incidence and severity of adverse events through Day 29. No patient experienced clinical sequelae from CRS, ICANS or related SAEs. Serious infections and related SAEs are reported to latest follow-up.
†Graded per ASTCT Consensus Grading Criteria.
‡Coded in System Organ Class of Infections and Infestations and meets seriousness criteria.
§As assessed per US Food and Drug Administration guidelines.
¶Transient hypotension on Day +10 resolved with IV hydration; no tocilizumab administered.
**Productive cough & fever prior to infusion. Low grade fever & rigors on Day +8, treated with IV cefepime, vancomycin, and morphine. ICE 3 score on Day +9, progressed to ICE 1 on Day +10: arousable; able to speak and follow commands but answered all questions to the ICE assessment incorrectly; no evidence of seizure, elevated intracranial pressure or cerebral edema; resolved within 2 days following dexamethasone.
ASTCT, American Society for Transplantation and Cellular Therapy; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; IV, intravenous; RESET, REstoring SElf-Tolerance; SAE, serious adverse event; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

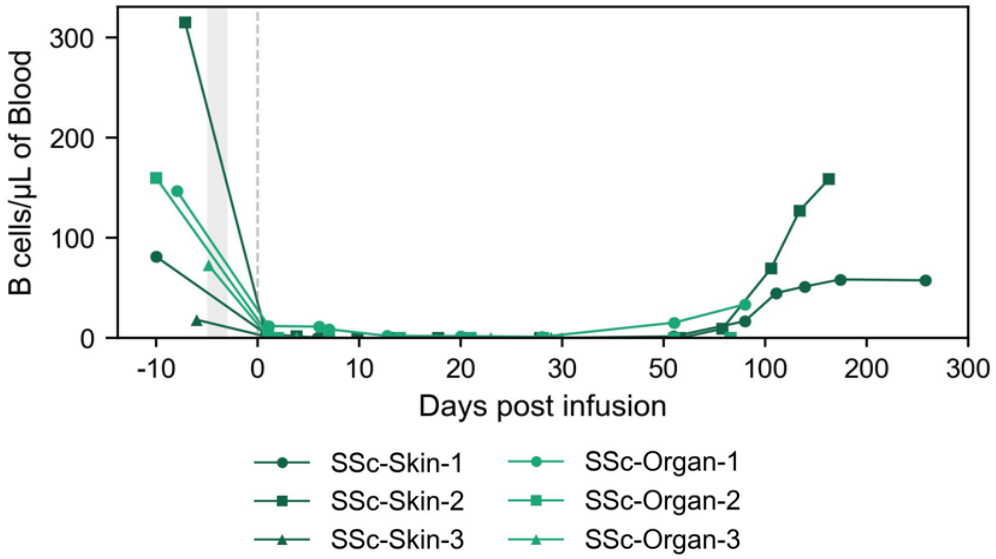
RESET-SSc: Rese-cel Expansion and B Cell Kinetics*

Rese-cel peak expansion was observed at approximately 2 weeks after infusion

Rese-cel Pharmacokinetics



B Cell Kinetics



Peripheral B cells begin repopulating 2 to 3 months following rese-cel infusion

X-axes represent time following rese-cel infusion in days; the vertical gray dotted line indicates the day of rese-cel infusion and the vertical gray shading prior to infusion indicates the window in time for preconditioning across all SSc patients.
*As of 11 Sep 2025.
rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

RESET-SSc: Efficacy Data Following Rese-cel infusion*

As of the data cut-off, 100% (4 of 4) of SSc patients with at least 12 weeks of follow-up achieved rCRISS-25 responses

	Severe Skin Cohort			Organ Cohort		
Patient / Cohort	**SSc-Skin-1**	**SSc-Skin-2**	**SSc-Skin-3**	**SSc-Organ-1**	**SSc-Organ-2**	**SSc-Organ-3**
Latest follow-up	Week 48	Week 24	Day 29	Week 16	Week 12	Day 29
GC-free	✓	✓	✓	✓	✓	–‡‡
IM-free	✓	✓	✓	✓	✓	✓
Antibody and trend†	RNA Pol III ↓	Scl-70 ↓**	RNA Pol III; *too early*	None detected	Scl-70 ↓	Scl-70; *too early*
Revised CRISS-25‡ (time to response)	✓ **Week 12**	✓ **Week 24**	N/A	✓ **Week 12**	✓ **Week 12**	N/A
Revised CRISS-50‡ (time to response)	✓ **Week 12**§	✓ **Week 24**	N/A	–	✓ **Week 12**	N/A
mRSS (baseline to latest follow-up)	42→23	38→27	45→32	12→6	9→4	24→22
FVC¶ [%] (baseline to latest follow-up)	91→105	93→100	N/A	69→72	76→77	N/A
DLCO¶ [%] (baseline to latest follow-up)	70→81	58→75	N/A	58→58	66→75	N/A

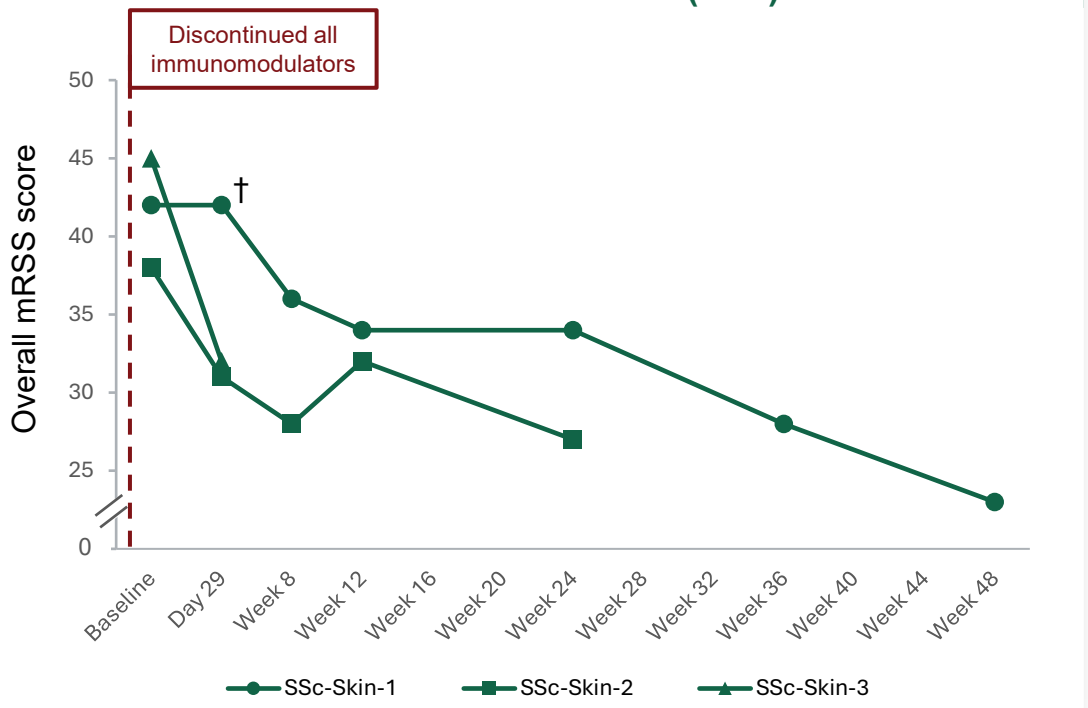
All SSc patients with at least 12 weeks of follow-up achieved meaningful clinical responses off all immunomodulators and off or tapering steroids

*As of 11 Sep 2025.
†Reflects trend from baseline to latest available timepoint. ‡Revised CRISS is evaluated at Weeks 12, 24, 36, and 52. PFTs from Week 24 are carried forward for Week 36 evaluation. §Revised CRISS-50 met at Weeks 12 and 36. Not met at Week 24. ¶DLCO and FVC are evaluated at Weeks 12 and 24. **Based on the research-based, qualified, quantitative Luminex assay. ‡‡Tapering GC.
CRISS, Composite Response Index in Systemic Sclerosis; DLCO, % predicted diffusing capacity for carbon monoxide; FVC, forced vital capacity; GC, glucocorticoid; IM, immunomodulatory medication; mRSS, modified Rodnan Skin Score (measure of skin thickness in SSc across 17 body areas, with a maximum score of 51); N/A, not applicable; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; RNA Pol III/RP11, ribonucleic acid polymerase III; Scl-70, anti–topoisomerase I antibody; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

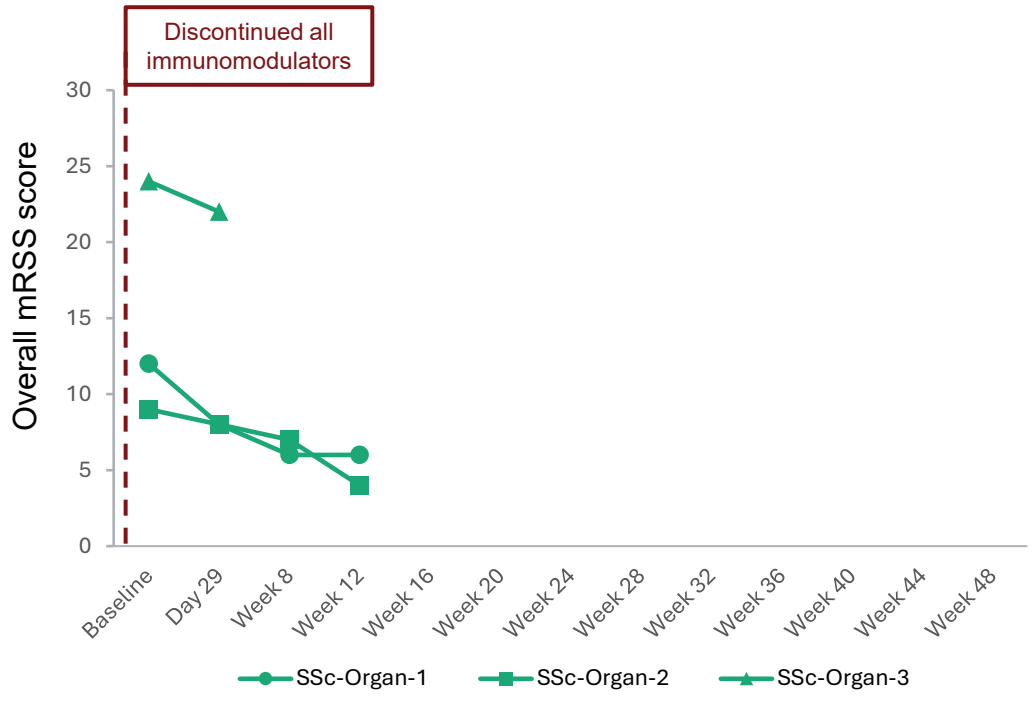
RESET-SSc: Efficacy Data Following Rese-cel Infusion*

mRSS scores through latest follow-up

Severe skin cohort (N=3)



Organ cohort (N=3)

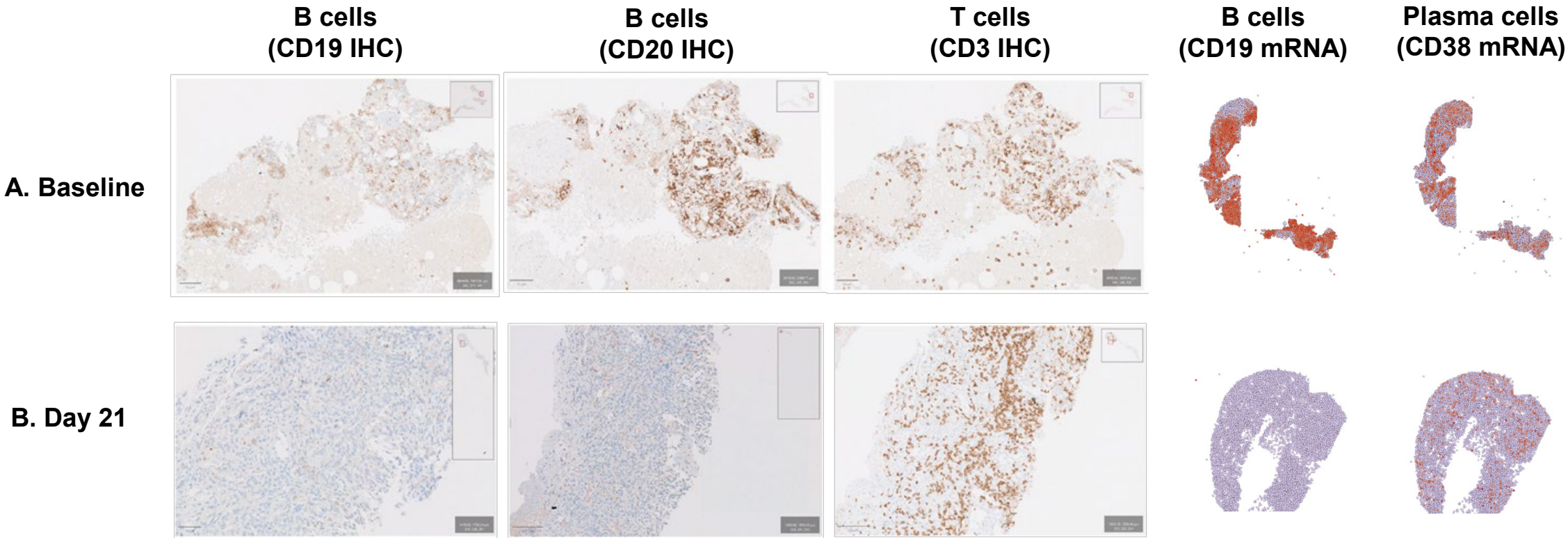


mRSS scores improved in all 6 patients from baseline to latest follow-up while off all immunomodulators and off or tapering steroids

*As of 11 Sep 2025.
†Assessed at Week 3.
mRSS, modified Rodnan Skin Score (measure of skin thickness in SSc across 17 body areas, with a maximum score of 51); rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

Lymph Node B Cell Depletion in SSc-Skin-1[1]*

Tissue resident depletion, consistent with the deep B cell depletion in circulation, observed via lymph node biopsy



Deep tissue B cell depletion observed in SSc-Skin-1 is consistent with an academic study in autoimmune disease showing CD19-CAR T cell therapy achieves this deep depletion in contrast to mAbs[2]

*Lymph node biopsies were from the left inguinal area using USG at University of Michigan by Dr. Khanna.

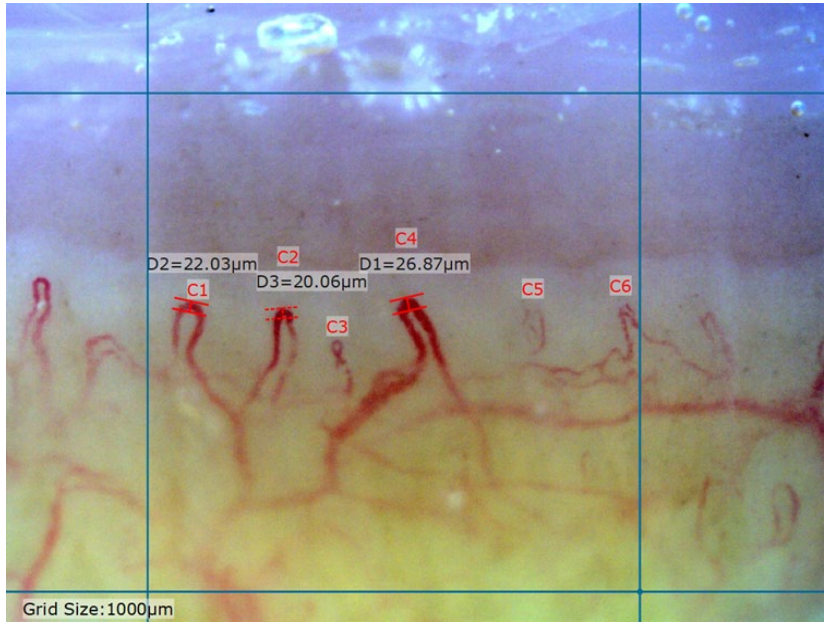
CAR, chimeric antigen receptor; CD, cluster of differentiation; IHC, immunohistochemistry; mAb, monoclonal antibody; mRNA, messenger ribonucleic acid; SSc, systemic sclerosis; USG, ultrasonography.

1. Cabaletta Bio: Data on File. 2. Tur C, et al. *Ann Rheum Dis*. 2025;84(1):106–114.

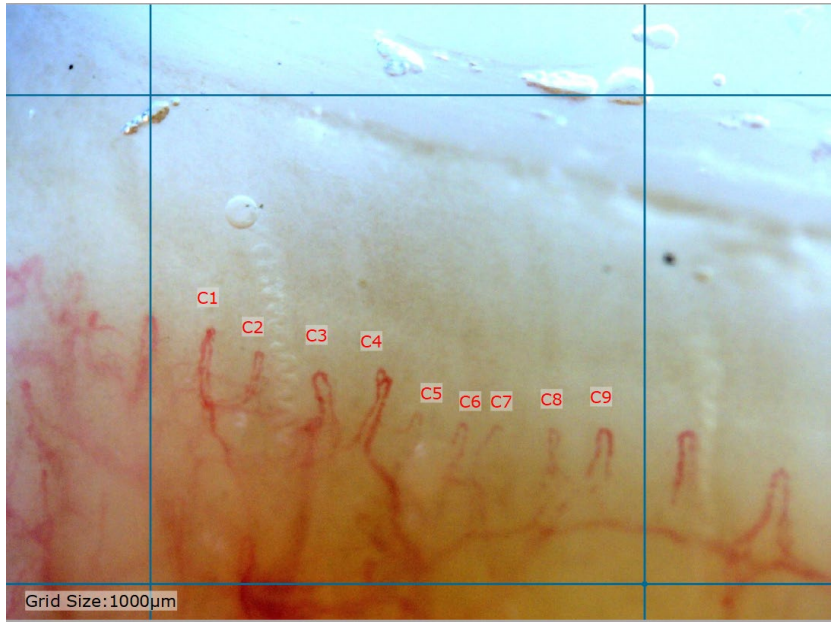
Nailfold Capillaroscopy for SSc-Skin-1 After Rese-cel

Preliminary evidence of vascular recovery or stabilization in the majority of fingers

Baseline



Week 24



rese-cel, resecabtagene autoleucel; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

RESET SSc™

Key Takeaways: Focus on SSc

SSc has the highest mortality of all rheumatic diseases and therapeutic options remain limited

- Rese-cel was generally well-tolerated across 6 SSc patients treated to date*
  - No CRS in 3 of 6 patients, Grade 1 CRS in 2 patients, and Grade 2 CRS in 1 patient
  - No ICANS in 5 of 6 patients, Grade 3 ICANS in 1 patient (previously presented)
- Rese-cel peak expansion was observed at approximately 2 weeks after infusion
- B cells reduced markedly in peripheral blood and lymphoid tissues; transitional naïve B cells began to repopulate by 2 to 3 months following rese-cel infusion
- After discontinuation of all immunomodulatory therapies:
  - 100% (4 of 4) of patients with sufficient follow-up achieved rCRISS-25
  - 75% (3 of 4) of patients with sufficient follow-up achieved rCRISS-50

These initial data suggest the potential for rese-cel to reset the immune system in SSc, allowing patients to achieve meaningful clinical responses off all immunomodulators and GCs

*As of 11 Sep 2025.
CRISS, Composite Response Index in Systemic Sclerosis; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; GC, glucocorticoid, rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SSc, systemic sclerosis.
Cabaletta Bio: Data on File.

Cabaletta Bio®

CAR T in Autoimmune Disease: Focus on Lupus and Pemphigus Vulgaris

David J. Chang

SLE and Lupus Nephritis: High Unmet Clinical Need

Affects ~320K U.S. patients and >3 million globally;[1,2] associated with multi-organ impacts and reduced quality of life[3,4]

Lupus is a chronic autoimmune disease affecting multiple organs, with potential for life-threatening complications[3]

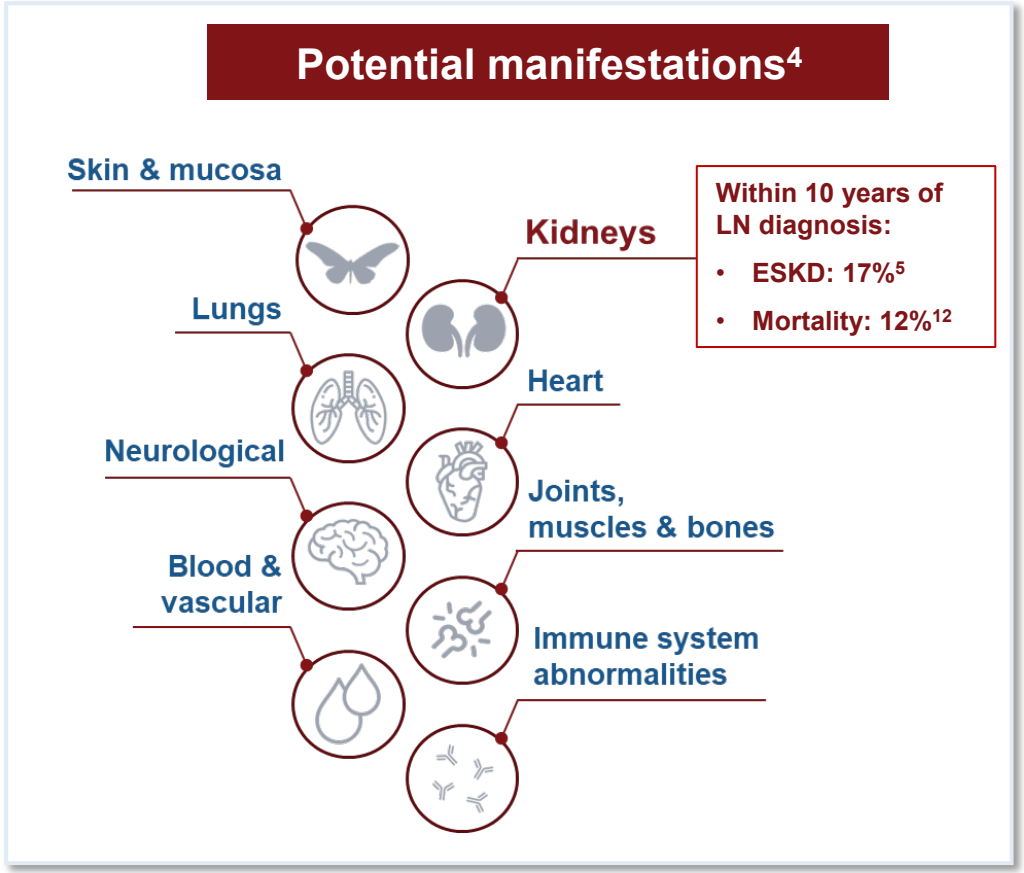
- ~30–40% of patients with SLE develop LN and face an increased risk of kidney failure and death[5]

Lupus negatively impacts quality of life, with fatigue being a common symptom

- Associated with higher mortality and diminished health-related quality of life compared with the general population[3,6]
- Disproportionately impacts women and people of color[5,7]

Current therapies include biologics, immunosuppressants, and steroids

- Patients frequently require long-term immunosuppression[8]
- Durable, drug-free remission is rarely achieved[9]
- Current therapies carry significant burden for patients, including adverse effects and risk of relapse[10,11]

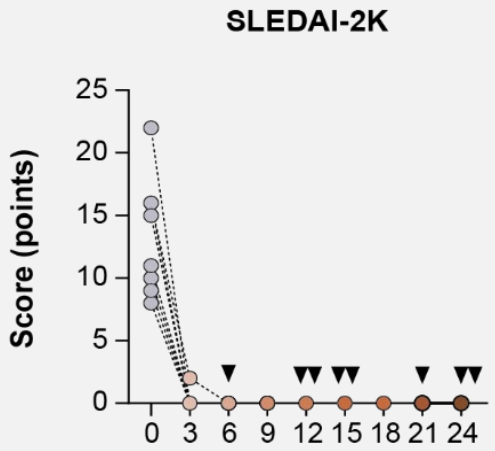


ESKD, end-stage kidney disease; LN, lupus nephritis; SLE, systemic lupus erythematosus.

1. Helmick CG, et al. *Arthritis Rheum.* 2008;58(1):15–25. 2. Tian J, et al. *Ann Rheum Dis.* 2023;82(3):351–356. 3. Zen M, et al. *Eur J Intern Med.* 2023;112:45–51. 4. Fu Q, et al. *Cell Mol Immunol.* 2021;18(8):2073–2074. 5. Hoover PJ, et al. *Kidney Int.* 2016;90(3):487–492. 6. Refai RH, et al. *Sci Rep.* 2024;14(1):5234. 7. Lewis MJ, Jawad AS. *Rheumatology (Oxford).* 2017;56(suppl 1):i67–i77. 8. Kostopoulou M, et al. *Ann Rheum Dis.* 2024;83(11):1489–1501. 9. Nikfar M, et al. *Int J Clin Pract.* 2021;75(4):e13909. 10. Spies E, et al. *JMIR Form Res.* 2024;8:e52768. 11. Olesińska M, Saletra A. *Reumatologia.* 2018;56(1):45–54. 12. Hahn BH, et al. *Arthritis Care Res (Hoboken).* 2012;64(6):797–808.

Published Clinical Data on CAR T to Date: Lupus*

University of Erlangen data in 8 adult patients with severe refractory SLE with renal involvement treated with CD19-CAR T cell therapy:[1]



- Treatment-free, durable remission per DORIS criteria in all patients, maintained up to 29 months after CD19-CAR T cell infusion (n=8 SLE patients)
- Favorable safety data, with no ICANS observed and grade 1 CRS (fever) observed in 5/8 patients

A recent systematic review evaluated all clinical studies assessing CAR therapy. Three reports evaluated bispecific CD19-BCMA CAR T cells, and the remaining studies assessed outcomes for CD19-targeted CARs, with a combined population of 145 participants[2]:

- Pooled analysis of the 102 individual SLEDAI scores showed a reduction of mean baseline SLEDAI of 13.1 to 2.3 and 1.4, after 6 and 12 months, respectively
- DORIS remission was achieved in 70% of patients and LLDAS in 89%
- CRS occurred in 56% of participants; only 1 CRS event was grade 3. ICANS were reported in four patients, including 1 grade 3 and 1 grade 4. No neurological sequelae were reported

*Summary of several CAR T constructs published in lupus to date, not product specific.
BCMA, B-cell maturation antigen; CAR, chimeric antigen receptor; CD, cluster of differentiation; CRS, cytokine release syndrome; DORIS, Definitions of Remission In SLE; ICANS, immune effector cell-associated neurotoxicity syndrome; LLDAS, lupus low disease activity state; LN, lupus nephritis; rese-cel, resecabtagene autoleucel; SLE, systemic lupus erythematosus; SLEDAI-2K, SLE Disease Activity Index 2000.
1. Müller F, et al. *N Engl J Med*. 2024;390(8):687–700. 2. Nordmann-Gomes A, et al. *Semin Arthritis Rheum*. 2025;74:152786.

SLE and LN Trial Design: Clinical Endpoints and Definitions

DORIS Remission[1]

- Clinical SLEDAI-2K=0 (irrespective of serology)
- Physician Global Assessment <0.5
- Taking antimalarials; low-dose GCs (prednisolone ≤5 mg/day); stable immunosuppressives including biologics

Complete Renal Response[2]

- UPCR ≤0.5 mg/mg
- eGFR ≥60 mL/min or no confirmed eGFR decrease of >20% from baseline
- No receipt of rescue therapy

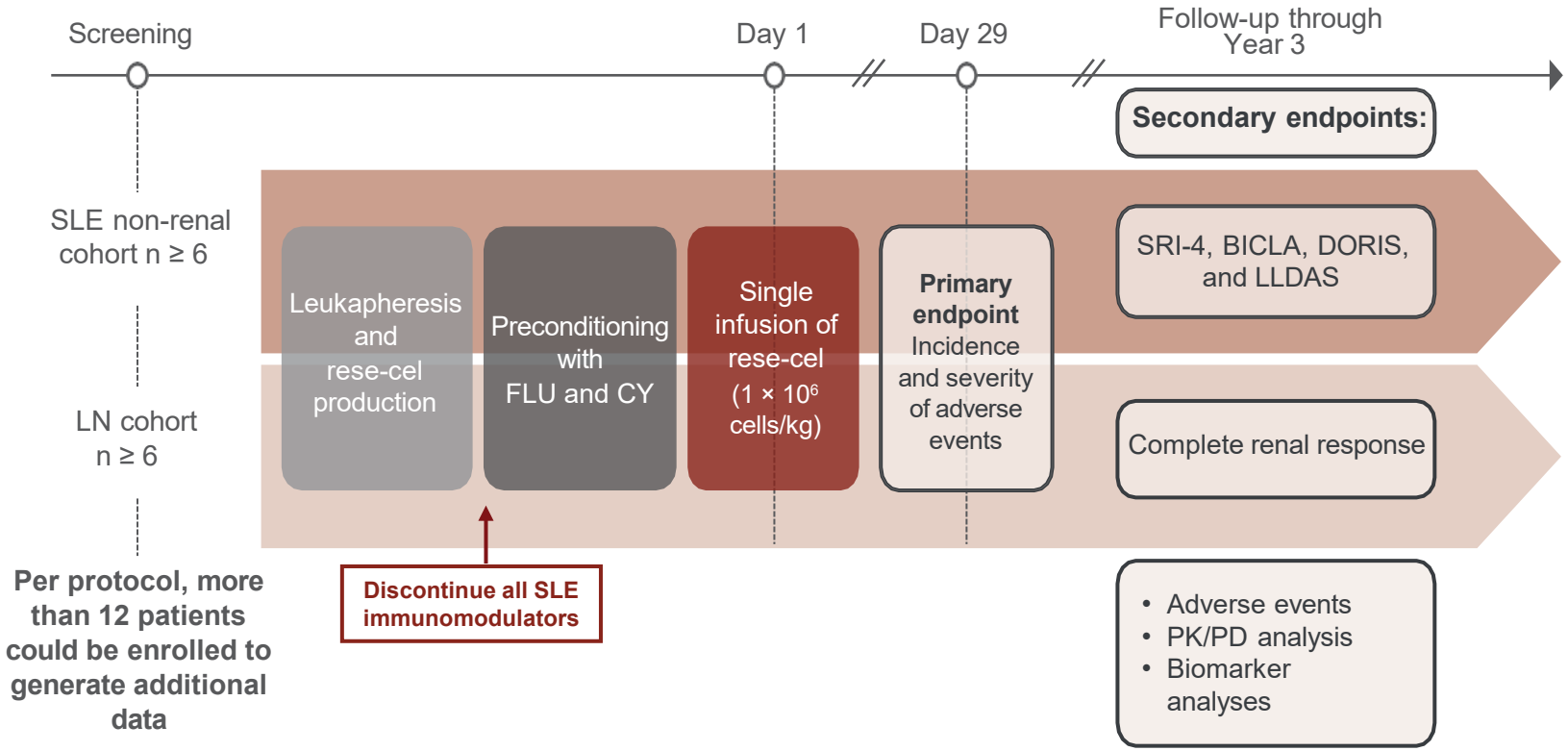
Partial Renal Response

- ≥50% reduction from baseline in UPCR

1. van Vollenhoven RF, et al. *Lupus Sci Med Nov.* 2021;8(1):e000538 2. Rovin BH, *et al. Lancet.* 2021;397(10289):2070–2080.
DORIS, definition of remission in SLE; eGFR, estimated glomerular filtration rate; GC, glucocorticoid; LN, lupus nephritis; SLE, systemic lupus erythematosus; SLEDAI-2K, SLE Disease Activity Index 2000; UPCR, urine protein-to-creatinine ratio

RESET-SLE™ Study Design[1,2]

Enrolling patients with active, moderate to severe disease that is refractory to standard of care



Key Inclusion Criteria[1,2]

- Age ≥18 and ≤65 with an SLE diagnosis
- Positive ANA or anti-dsDNA at screening
- Evidence of active disease despite prior or current treatment with standard of care
- **For SLE (non-renal) cohort**: SLEDAI-2K ≥8; pure class V LN patients eligible for this cohort
- **LN cohort**: biopsy-proven LN class III or IV (± class V)

Key Exclusion Criteria[1,2]

- Presence of kidney disease other than LN
- Previous CAR T cell therapy and/or HSCT
- Treatment with B cell-depleting agent within prior ~6 months

ANA, antinuclear antibody; anti-dsDNA, anti-double-stranded DNA; BICLA, British Isles Lupus Assessment Group-based Composite Lupus Assessment; CAR, chimeric antigen receptor; CY, cyclophosphamide; DORIS, definitions of Remission In SLE; FLU, fludarabine; HSCT, hematopoietic stem cell transplant; LLDAS, lupus low disease activity state; LN, lupus nephritis; PK/PD, pharmacokinetic/pharmacodynamic; rese-cel, resecabtagene autoleucel; RESET, REstoring Self Tolerance; SLEDAI-2K, SLE Disease Activity Index 2000; SLE, systemic lupus erythematosus; SRI, SLE Responder Index.

1. Cabaletta Bio – Data on File. 2. NCT06121297. Available at: www.clinicaltrials.gov/study/NCT06121297 (accessed October 2025).

Baseline Characteristics: First 9 Patients in RESET-SLE*

All patients had active, refractory disease and had failed multiple B cell-targeted therapies

Cohort	Non-renal SLE (n=5)	LN (n=4)
Age, years, mean (min, max)	~34 (26, 44)	~26 (18, 35)
Female, n (%)	4 (80)	3 (75)
Time from diagnosis to screening, years, mean (min, max)	11.5 (6.1, 17.3)	7.3 (2.2, 15.7)
Autoantibodies (%)	dsDNA: 100% Sm: 60%	dsDNA: 75% Sm: 75%
Baseline disease activity†	**SLEDAI-2K** (median)	
	10	16
	UPCR (mg/mg) (median)	
	1.09§	3.45
Therapies at screening:		
Systemic GCs	80%	50%
≤2 SLE immunomodulators‡	60%	50%
≥3 SLE immunomodulators‡	40%	50%
GC dose at screening, mg/day, mean (min, max)	13.4 (0, 30)	6.25 (0, 20)

*As of 11 Sep 2025.
†Baseline disease activity = activity before preconditioning.
‡SLE medications may include biologics, anti-malarials, and immunosuppressants.
§N=2 patients included in UPCR analysis: SLE-1 had pure Class V LN and extra-renal SLE disease activity and SLE-5 had Class II LN with moderate to severe chronicity and extra-renal disease activity that met inclusion criteria for the non-renal cohort.
dsDNA, double-stranded DNA; GC, glucocorticoid; LN, lupus nephritis; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus; SLEDAI-2K, SLE Disease Activity Index 2000; Sm, Smith; UPCR, urine protein-to-creatinine ratio.
Cabaletta Bio: Data on File.

RESET-SLE: Incidence of Relevant and Related Serious Adverse Events*

No CRS in 6 of 9 patients (Grade 1 in 3 patients); no ICANS in 8 of 9 patients (Grade 4 in 1 patient, previously presented)

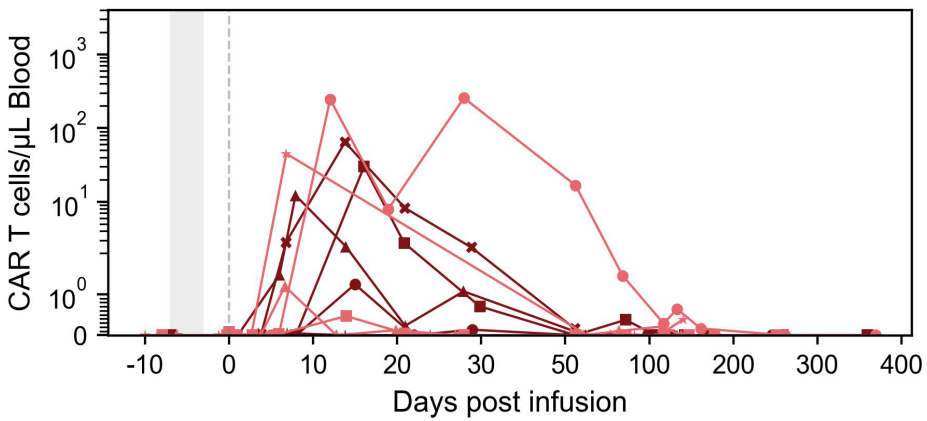
Cohort	Non-renal SLE (n=5)					LN (n=4)			
Patient	**SLE-1**	**SLE-2**	**SLE-3**	**SLE-4**	**SLE-5**	**LN-1**	**LN-2**	**LN-3**	**LN-4**
CRS†	None	Grade 1	None	None	Grade 1	Grade 1	None	None	None
ICANS†	None	None	None	None	None	Grade 4	None	None	None
Serious infections‡	None	None	None	None	None	None	None	None	None
Related SAEs (Grade)§ (Excluding CRS/ICANS)	None	None	None	None	None	Fever (1) Neutropenic fever (1) Pancytopenia¶ (4)	None	None	None

*As of 11 Sep 2025; primary endpoint is incidence and severity of adverse events through Day 29. Serious infections and related SAEs are reported to latest follow-up. No patient experienced clinical sequelae from CRS, ICANS or related SAEs.
†Graded per ASTCT Consensus Grading Criteria. 7 of 9 patients received anti-seizure prophylaxis. Tocilizumab was administered for CRS in one patient.
‡Coded in System Organ Class of Infections and Infestations and meets seriousness criteria.
§As assessed per US Food and Drug Administration guidelines.
¶Consistent with "Prolonged Cytopenias," which is a labeled warning and precaution for approved oncology CAR T products.
ASTCT, American Society for Transplantation and Cellular Therapy; CAR, chimeric antigen receptor; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; LN, lupus nephritis; RESET, REstoring SElf-Tolerance; SAE, serious adverse event; SLE, systemic lupus erythematosus.
Cabaletta Bio: Data on File.

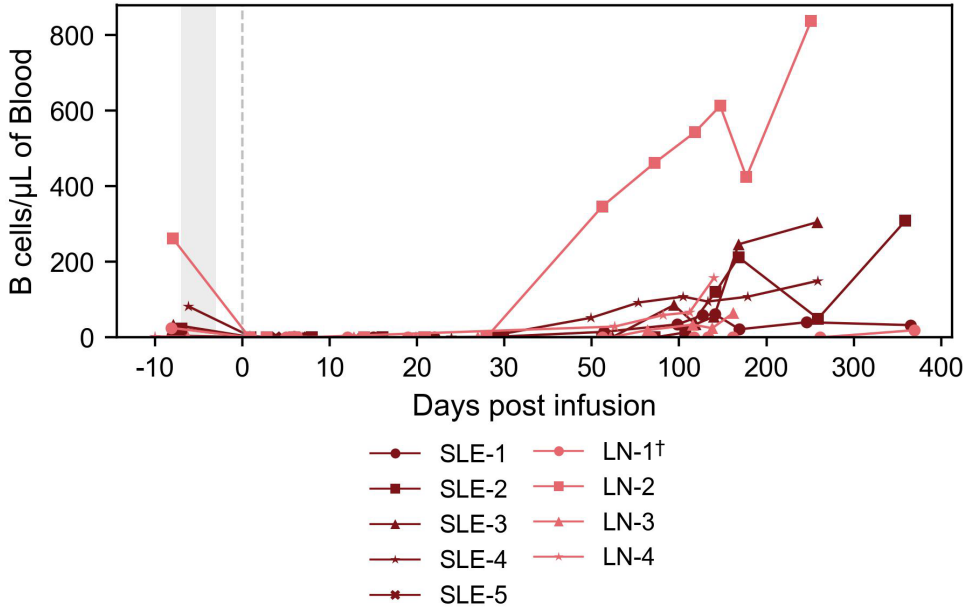
RESET-SLE: Rese-cel Expansion and B Cell Kinetics*

Peak rese-cel expansion was observed at approximately 2 weeks after rese-cel infusion

Rese-cel Pharmacokinetics



B Cell Kinetics



B cells reduced markedly in peripheral blood and in most patients, transitional naïve B cells began to repopulate 1 to 3 months following rese-cel infusion

X-axes represent time following rese-cel infusion in days; the vertical gray dotted line indicates the day of rese-cel infusion and the vertical gray shading prior to infusion indicates the window in time for preconditioning across all SLE and LN patients.
*As of 11 Sep 2025.
†LN-1 C_{max} occurred on study Day 29 with T cell receptor sequencing analysis suggesting the second expansion was TCR driven.
LN, lupus nephritis; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus, TCR, T cell receptor.
Cabaletta Bio: Data on file.

Non-renal SLE: Efficacy Data Following Rese-cel Infusion*

RESET SLE™

3 of 4 SLE patients with sufficient follow-up achieved DORIS

	Non-renal SLE				
Patient	**SLE-1†**	**SLE-2**	**SLE-3**	**SLE-4**	**SLE-5†**
Latest follow-up	Week 68	Week 52	Week 44	Week 40	Week 8
IM-free	✓	✓	✓	✓	✓
GC-free	✓	✓	✓	No	No
DORIS‡ (at latest follow-up)	–§	✓	✓	✓	*Too early*
PGA (% improvement from baseline)	93	100	100	64	40
SLEDAI-2K improvement (baseline to latest follow-up)	21	8	6	4	7
Anti-dsDNA antibody (change from baseline)	↓	↔ *Transiently negative*	↓	↓	↓
Complement (C3 or C4) (baseline to latest follow-up)	Improving	Normalized	Normal at baseline	*Transiently normalized (up until week 28)*	Normalized
CRR‡ (at latest follow-up)	✓	N/A	N/A	N/A	–
PRR‡ (at latest follow-up)	✓	N/A	N/A	N/A	–
UPCR (mg/mg) (baseline to latest follow-up)	1.08→0.35	N/A	N/A	N/A	1.09→0.81
eGFR (mL/min/1.73m²) (baseline to latest follow-up)	132.7→109.7	N/A	N/A	N/A	108.7→99.2

*As of 11 Sep 2025.
†SLE-1 had pure Class V LN and extra-renal SLE disease activity and SLE-5 had Class II LN with moderate-severe chronicity and extra-renal disease activity that met inclusion criteria for the non-renal cohort.
‡DORIS = Clinical SLEDAI-2K=0 (irrespective of serology); Physician Global Assessment <0.5; antimalarials; low-dose GCs (prednisolone ≤5 mg/day); stable immunosuppressives including biologics. CRR = UPCR ≤0.5 mg/mg; ≥60 mL/min or no confirmed eGFR decrease of >20% from baseline; no receipt of rescue therapy. PRR = ≥50% reduction from baseline UPCR.
§SLE-1 achieved DORIS at Week 48; on cyclosporine therapy between Week 41 and Week 60 for a non-SLE-related, non-rese-cel-related safety event (macrophage activation syndrome with onset at Week 40).
CRR, complete renal response; DORIS, definition of remission in SLE; dsDNA, double-stranded DNA; eGFR, estimated glomerular filtration rate; GC, glucocorticoid; IM, immunomodulatory; LN, lupus nephritis; N/A, not applicable; PGA, physician's global assessment; PRR, partial renal response; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus; SLEDAI-2K, Systemic Lupus Erythematosus Disease Activity Index 2000; UPCR, urine protein-creatinine ratio.
Cabaletta Bio: Data on File.

LN: Efficacy Data Following Rese-cel Infusion*

RESET SLE™

LN-1 had CRR, LN-2 had PRR and LN-3 had a histologic response on repeat renal biopsy

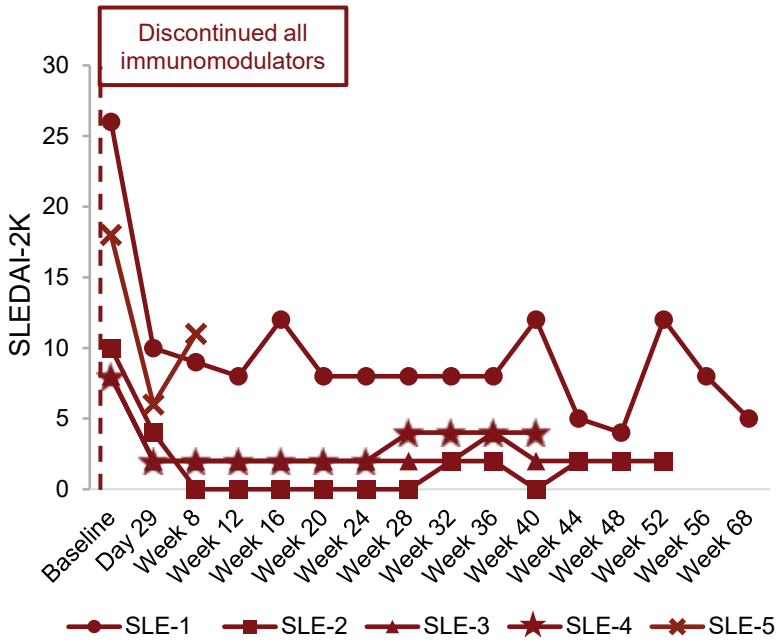
	LN			
Patient	**LN-1**	**LN-2**	**LN-3**	**LN-4**
Latest follow-up	Week 56	Week 40	Week 28	Week 20
IM-free	✓	✓	✓	✓
GC-free	✓	✓	✓	✓
DORIS† (at latest follow-up)	✓	N/A	N/A	N/A
PGA (% improvement from baseline)	100	100	100	100
SLEDAI-2K improvement (baseline to latest follow-up)	22	8	12	10§
Anti-dsDNA antibody (change from baseline)	↓ Negative	↓	Negative at baseline	↓
Complement (C3 or C4) (baseline to latest follow-up)	Normalized	Normalized	Normal at baseline	Normal at baseline
CRR† (at latest follow-up)	✓	–	–‡	–
PRR† (at latest follow-up)	✓	✓	–	–
UPCR (mg/mg) (baseline to latest follow-up)	7.22→0.18	4.85→2	2.04→1.13	1.69→1.83
eGFR (mL/min/1.73m²) (baseline to latest follow-up)	72.3→123.5	127.2→122.8	133.2→131.8	82.7→60.5

*As of 11 Sep 2025.
†DORIS = Clinical SLEDAI-2K=0 (irrespective of serology); Physician Global Assessment <0.5; antimalarials; low-dose GCs (prednisolone ≤5 mg/day); stable immunosuppressives including biologics. CRR = UPCR ≤0.5 mg/mg; ≥60 mL/min or no confirmed eGFR decrease of >20% from baseline; no receipt of rescue therapy. PRR = ≥50% reduction from baseline UPCR.
‡LN-3 achieved histologic response (activity index 0/12) on repeat kidney biopsy at 26 weeks post-infusion despite partial reduction in proteinuria.
§Week 20 urinalysis components of the SLEDAI-2K (WBC, RBC and casts) imputed from Week 16 for total SLEDAI-2K score.
CRR, complete renal response; DORIS, definition of remission in SLE; dsDNA, double-stranded DNA; eGFR, estimated glomerular filtration rate; GC, glucocorticoid; IM, immunomodulatory; LN, lupus nephritis; N/A, not applicable; PGA, physician's global assessment; PRR, partial renal response; RBC, red blood cell; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus; SLEDAI-2K, Systemic Lupus Erythematosus Disease Activity Index 2000; UPCR, urine protein-creatinine ratio; WBC, white blood cell.
Cabaletta Bio: Data on File.

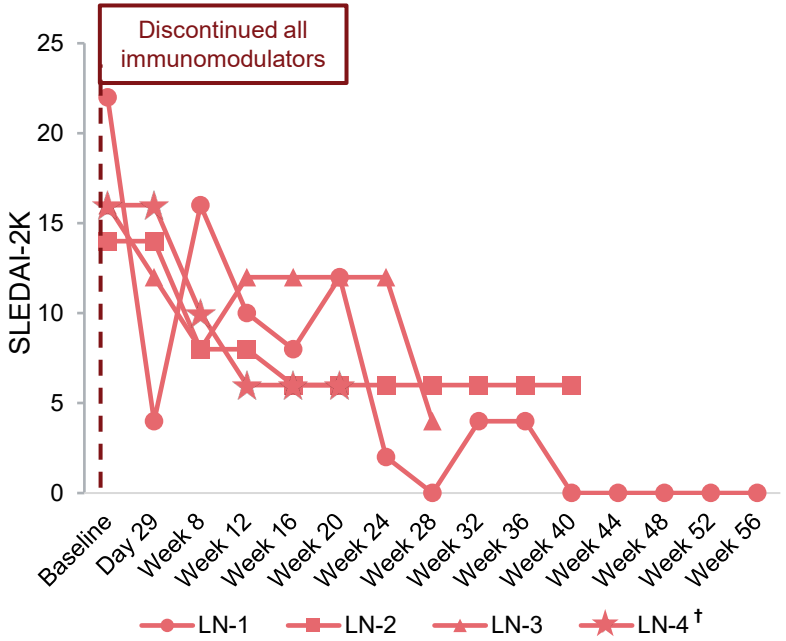
RESET-SLE: Efficacy Data Following Rese-cel Infusion*

Improvements in SLEDAI-2K over time and significant reduction in anti-dsDNA antibodies after discontinuing immunomodulators

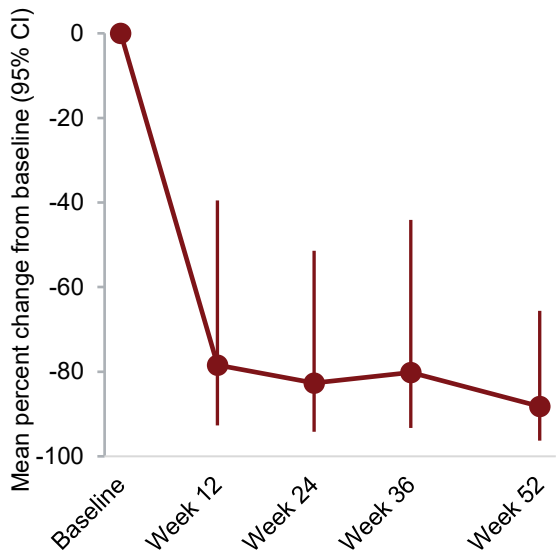
SLEDAI-2K, non-renal SLE (n=5)



SLEDAI-2K, LN (n=4)



Anti-dsDNA antibody (N=9)‡



A median 8-point reduction in SLEDAI-2K was reported through latest follow-up with all patients off immunomodulators along with signification reduction in anti-dsDNA antibodies

*As of 11 Sep 2025.
†Week 20 urinalysis components of the SLEDAI-2K (WBC, RBC and casts) imputed from Week 16 for total SLEDAI-2K score.
‡Assessed by ELISA at a central lab at baseline, weeks 12, 24, 36 and 52.
dsDNA, double-stranded DNA; LN, lupus nephritis; RBC, red blood cell; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SLE, systemic lupus erythematosus; SLEDAI-2K, Systemic Lupus Erythematosus Disease Activity Index 2000; WBC, white blood cell.
Cabaletta Bio: Data on File.

Key Takeaways: Focus on SLE and LN

Despite recent advances, SLE and LN have high unmet needs, and patients rarely achieve remission even on therapy

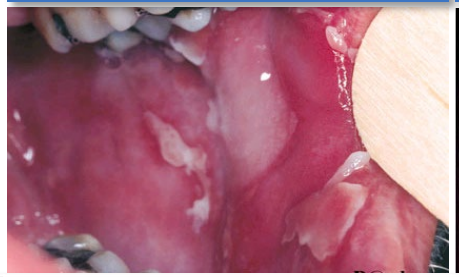
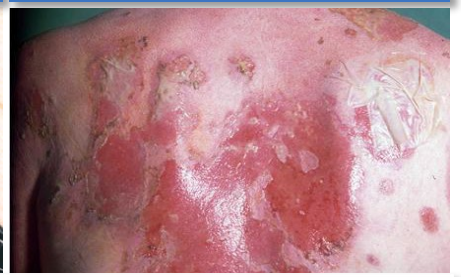
- Rese-cel was generally well tolerated across 9 SLE & LN patients treated to date*
  - No CRS in 6 of 9 patients (Grade 1 in 3 patients)
  - No ICANS in 8 of 9 patients (Grade 4 in 1 patient, previously presented)
- Peak expansion of rese-cel was observed at approximately 2 weeks after infusion in SLE & LN patients
- B cells reduced markedly in peripheral blood; in most patients, transitional naïve B cells began to repopulate 1 to 3 months following rese-cel infusion
- After discontinuation of immunomodulatory medications, SLE and LN patients with active and refractory disease showed evidence of efficacy after rese-cel infusion:
  - 75% (3 of 4) SLE patients, with sufficient follow-up achieved DORIS
    - SLE-1 (pure class V LN) achieved CRR; SLE-5 follow-up ongoing
  - 75% (3 of 4) LN patients showed renal response; LN-1 achieved CRR; LN-2 achieved PRR and LN-3 achieved histologic response on repeat biopsy at 26 weeks despite a partial reduction in proteinuria
  - Overall, median 8-point reduction in SLEDAI-2K and 89% improvement in PGA as of latest follow-up
  - Overall, significant reduction in anti-dsDNA antibodies was observed

These initial data suggest the potential for rese-cel to reset the immune system in SLE & LN, allowing patients to achieve meaningful clinical responses off all immunomodulators and GCs

*As of 11 Sep 2025.
CRR, complete renal response; CRS, cytokine release syndrome; DORIS, definition of remission in SLE; dsDNA, double-stranded DNA; GC, glucocorticoid; ICANS, immune effector cell-associated neurotoxicity syndrome; LN, lupus nephritis; PGA, Physician Global Assessment; PRR, partial renal response; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance; SLE systemic lupus erythematosus; SLEDAI-2K, SLE Disease Activity Index 2000.
Cabaletta Bio: Data on File.

Overview of Pemphigus Vulgaris & Current Treatment Landscape

Pemphigus vulgaris is a B cell driven disease with high unmet need

	Mucosal PV[1] (25%)	Mucocutaneous PV[2] (75%)
		
Associated Antibody	**Anti-DSG3**	**Anti-DSG3 + Anti-DSG1**
Clinical Signs	Painful blisters of the orifices including mucous membranes (mouth, nose, larynx, esophagus, eyes, genitalia, rectum)	Blisters on orifices and skin

Reported mortality rates for pemphigus patients are higher than rates for non-pemphigus individuals, ranging from 4.8% (over a 2-year period) to 25.9% (over a 9-year period)[3,4]

Broad immunosuppression[5,6]

Modestly effective & poorly tolerated

Rituximab plus steroids (cumulative GC dose of ~3,500 mg/yr)[7]

Yielded sustained complete remission in 40% of patients in a 52-week trial[7]

Transient remission

- In a retrospective cohort study, 70% of patients receiving rituximab achieved complete remission off therapy (CROT*) after median follow up of 10.5 months[6]
- 50% relapsed after a median of 23 months potentially due to incomplete B cell depletion[6]

Safety risks

- 22% annual serious adverse event (SAE) rate[7]
- Up to 9%[5,7,8] annual risk of severe infection in PV
- ~1.9% lifetime risk of fatal infection[9]

**CROT = 8+ weeks without lesions while off systemic and topical therapy*

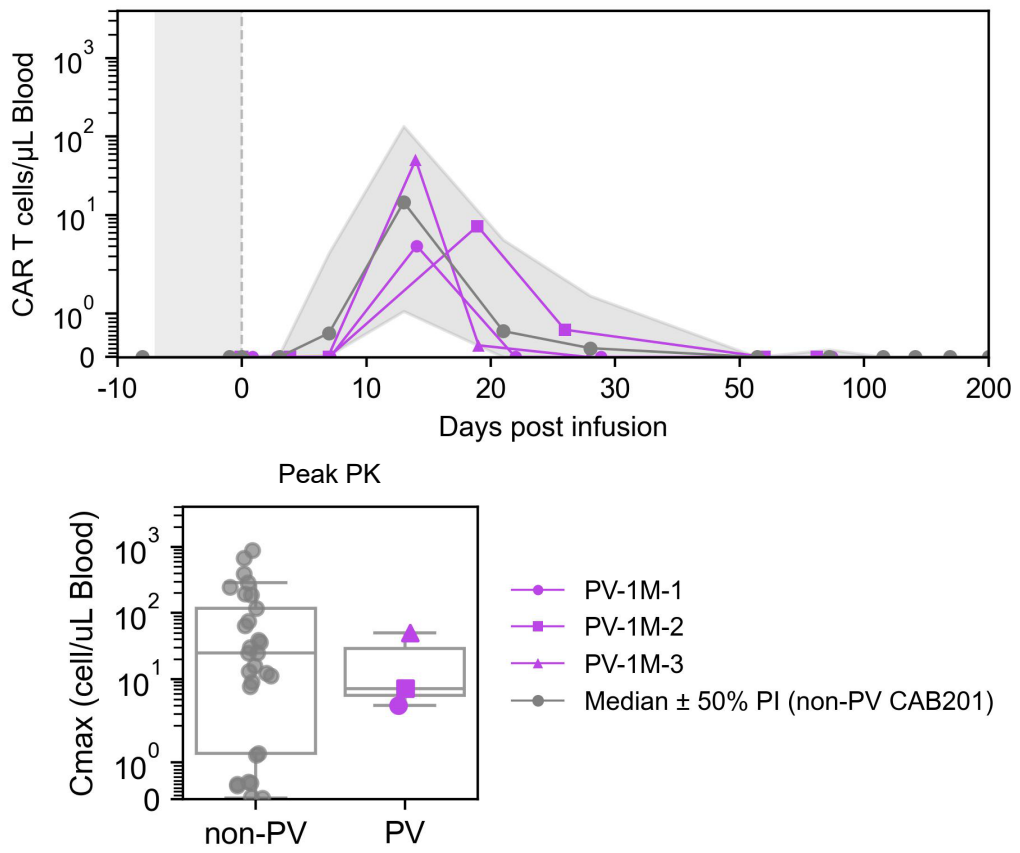
CROT, complete remission off therapy; DSG1, desmoglein 1; DSG3, desmoglein 3; GC, glucocorticoid; PV, pemphigus vulgaris.

1. Image credit: D@nderm. 2. Image credit: www.vgrd.org 3. Silverberg, et al. J Am Acad Dermatol. 2022; 87(3), AB205. 4. Hsu DY, et al. Br J Dermatol. 2016; 174(6):1290-1298. 5. Joly P, et al. Lancet. 2017; 389(10083): 2031-2040. 6. Kushner CJ, et al. JAMA Dermatol. 2019; 155(12): 1404-1409. 7. Werth VP, et al. N Engl J Med. 2021; 384(24): 2295-2305. 8. FDA. Rituxan (rituximab) Prescribing Information. Available online: www.accessdata.fda.gov/drugsatfda_docs/label/2021/103705s5467lbl.pdf. (Accessed Oct 2025). 9. Tony HP, et al. Arthritis Res Ther. 2011; 13(3): R75.

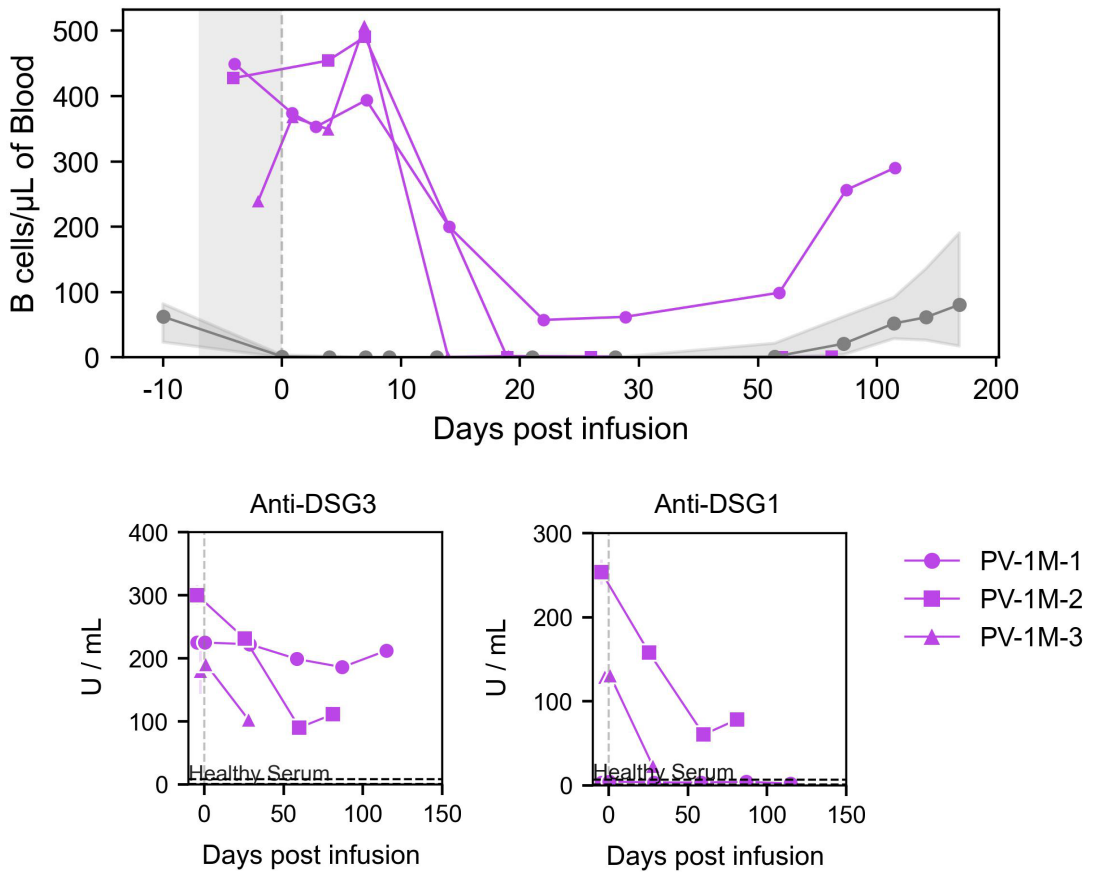
Rese-cel Expansion and B Cell Kinetics in PV Patients Treated Without PC*

Similar magnitude of rese-cel expansion and B cell depletion with observed reductions in autoantibodies at same weight-based dose without PC

Rese-cel pharmacokinetics without PC



Rese-cel pharmacodynamics without PC



*As of 11 Sep 2025. RESET-PV Data was initially Presented at ESGCT 2025.
Gray vertical dotted line indicates day of rese-cel infusion (study visit Day 1). Gray vertical shading indicates PC window relative to infusion.
1M, 1 million CAR T cells / kg; CAR, chimeric antigen receptor; DSG1, desmoglein 1; DSG3, desmoglein 3; PI, percentile interval; PC, preconditioning; PV, pemphigus vulgaris; rese-cel, resecabtagene autoleucel; RESET, REstoring SElf-Tolerance.
Cabaletta Bio: Data on file.

RESET-PV: Incidence of Relevant and Related Serious Adverse Events*

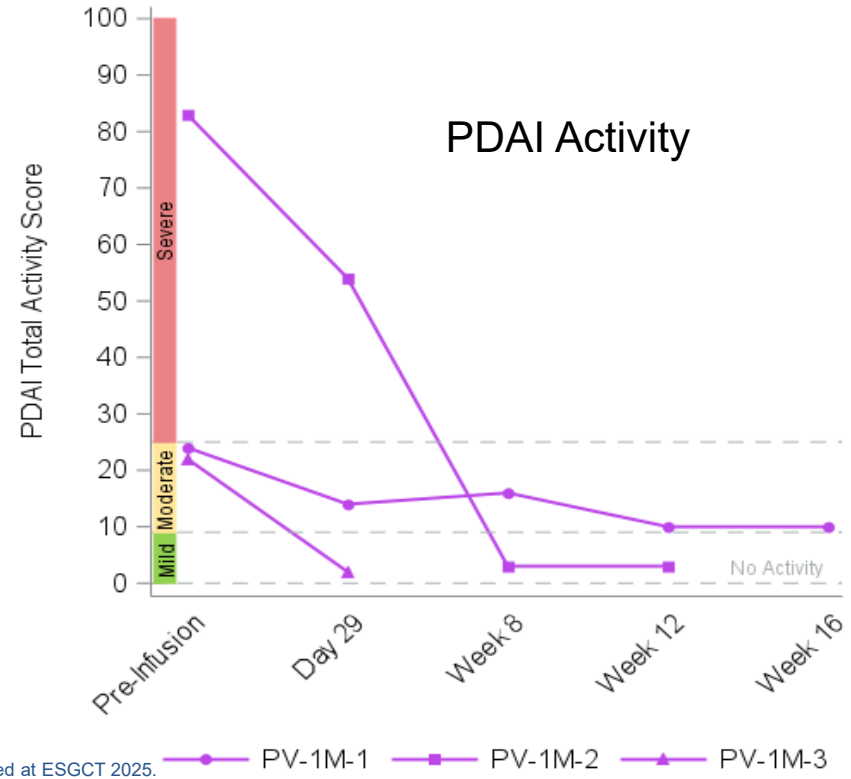
	RESET-PV without preconditioning		
Patient	**PV-1M-1**	**PV-1M-2**	**PV-1M-3**
Latest follow up*	Week 16	Week 12	Day 29
CRS†	Grade 1	None	None
ICANS†	None	None	None
Serious infections‡	None	None	None
Related SAEs (Grade)§ (excluding CRS and ICANS)	None	None	None

*As of 11 Sep 2025. RESET-PV Data was initially Presented at ESGCT 2025. Primary endpoint is incidence and severity of adverse events through Day 29.
†Graded per ASTCT Consensus Grading Criteria.
‡Coded in System Organ Class of Infections and Infestations and meets seriousness criteria.
§As assessed per US Food and Drug Administration guidelines.
1M, 1 million CAR T cells/kg; ASTCT, American Society for Transplantation and Cellular Therapy; CRS, cytokine release syndrome; ICANS, immune effector cell-associated neurotoxicity syndrome; PV, pemphigus vulgaris; RESET, REstoring SElf-Tolerance, SAE, serious adverse event.
Cabaletta Bio: Data on file.

RESET-PV: Efficacy Data Following Rese-cel Infusion*

At baseline, all patients had moderate to severe, active, refractory disease & failed B cell-targeting therapies, including RTX

	RESET-PV without preconditioning		
Patient	**PV-1M-1**	**PV-1M-2**	**PV-1M-3**
Latest follow-up*	Week 16	Week 12	Day 29
PDAI Total (Activity + Damage) **Baseline → latest available timepoint**	**24** (24+0) →**10** (10+0)	**95** (83+12) →**12** (3+9)	**23** (22+1) →**2** (2+0)

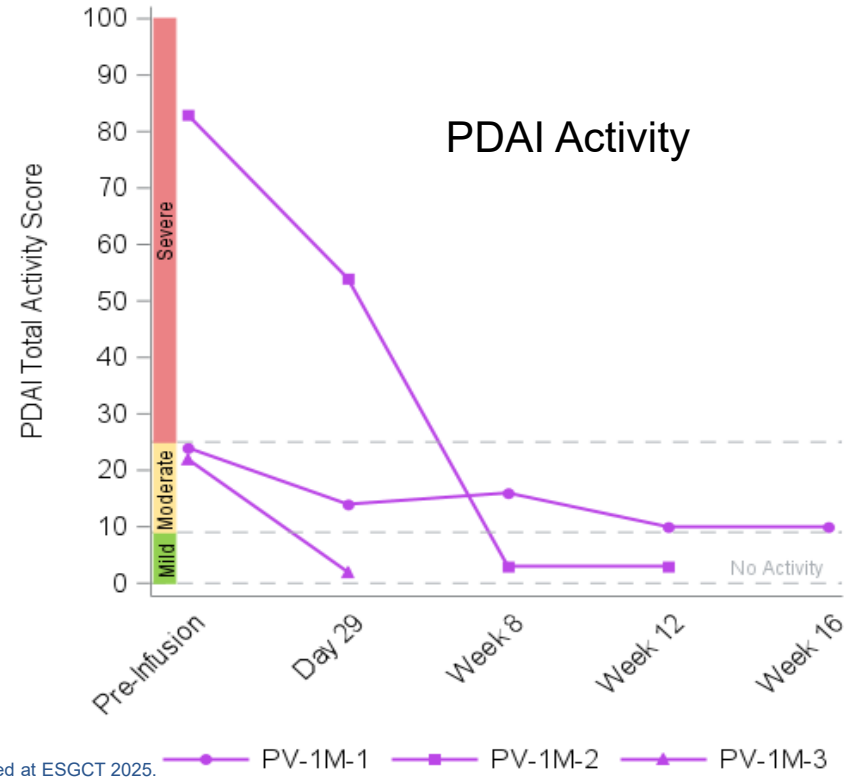


*As of 11 Sep 2025. RESET-PV Data was initially Presented at ESGCT 2025.
1M, 1 million CAR T cells/kg; PDAI, pemphigus disease area index; PV, pemphigus vulgaris; RESET, REstoring SElf-Tolerance; RTX, rituximab.
Cabaletta Bio: Data on file.

RESET-PV: Efficacy Data Following Rese-cel Infusion*

At baseline, all patients had moderate to severe, active, refractory disease & failed B cell-targeting therapies, including RTX

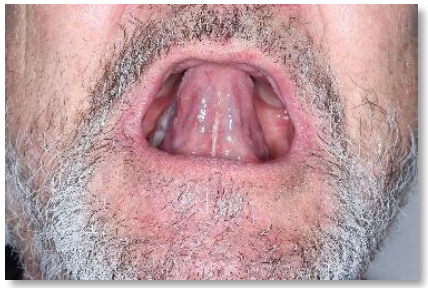
	RESET-PV without preconditioning		
Patient	**PV-1M-1**	**PV-1M-2**	**PV-1M-3**
Latest follow-up*	Week 16	Week 12	Day 29
PDAI Total (Activity + Damage) **Baseline → latest available timepoint**	**24** (24+0) →**10** (10+0)	**95** (83+12) →**12** (3+9)	**23** (22+1) →**2** (2+0)



Images PV-1M-2

Baseline

Week 12



*As of 11 Sep 2025. RESET-PV Data was initially Presented at ESGCT 2025.
1M, 1 million CAR T cells/kg; PDAI, pemphigus disease area index; PV, pemphigus vulgaris; RESET, REstoring SElf-Tolerance; RTX, rituximab.
Cabaletta Bio: Data on file.

Key Takeaways: Focus on Pemphigus Vulgaris (PV)

PV is a B cell-driven autoimmune disease

RESET-PV No Preconditioning (PC) Study

- Rese-cel without lymphodepleting PC demonstrated clear evidence of biologic and early clinical activity in all 3 PV patients in the initial dose cohort*
  - Clinical improvements were present in all 3 and was compelling in 2 of the 3 patients
- All patients remained off all immunomodulators while GCs are being tapered
- Complete B cell depletion was observed in the 2 patients with the compelling clinical responses
- Rese-cel persistence in PV patients without PC was similar to patients who received PC
  - Peak persistence was not impacted by absence of PC
  - Timing of peak persistence occurred slightly later without PC
- Rese-cel was well tolerated in PV patients without preconditioning

Implications for RESET-SLE: Clinical & translational data in lupus for rese-cel with preconditioning† (PC) along with initial no PC data in PV support expansion of simplified no PC regimen into lupus; initial clinical data anticipated in 2026

*As of 11 Sep 2025.
† Standard preconditioning in RESET trials consists of fludarabine 25 mg/m^2 x 3 days and cyclophosphamide 1000 mg/m^2 x 1 day.
GC, glucocorticoid; PC, preconditioning; PDAI, pemphigus disease area index; PV, pemphigus vulgaris; rese-cel, resacabtagene autoleucel; RESET, REstoring SElf-Tolerance.
Cabaletta Bio: Data on file.